



**BOARD OF DIRECTORS
9:00 a.m.
Friday, March 17, 2023
ACRWC Plant Site**

- 1. Adoption of Agenda**
- 2. Board Appointments Update – *For information***
- 3. Board/General Manager Covenant – *Kate Polkovsky***
- 4. Elections – *Kate Polkovsky***
- 5. Adoption of January 20, 2023 Meeting Minutes**
- 6. 2022 Audited Financial Statements and Financial Information Return - *Paul Krueger and Ernst & Young LLP***
- 7. Board Committees:**
 - a. Board Workshop – *Neal Comeau***
 - b. Advocacy - *Harold Pawlechko***
- 8. Administrative Reports – *Kate Polkovsky***
- 9. Administration and Procedures Bylaw – *Kate Polkovsky***
- 10. Bylaw No. 7, Fees and Charges – *Kate Polkovsky***
- 11. Bylaw No. 8, Quality of Wastewater – *Kate Polkovsky***
- 12. Source Control Annual Report – *Wade Teveniuk***
- 13. Water Re-Use Update – *Kate Polkovsky***
- 14. Notices of Motion**
- 15. Communications**
 - a. Correspondence**
 - b. Reporting In**
 - c. Reporting Out**
 - d. Conference Attendance**
- 16. Calendar of Events**
- 17. Adjourn**

Board Report

Date: March 17, 2023

Subject: Board Appointments Update

Recommendation:

THAT the updated appointment from Strathcona County to the Board be received for information.

Municipality	ACRWC Director
Strathcona County	Robert Parks

Discussion:

ACRWC Administration and Procedures Bylaw requires that each municipality appoint a member of their Council to the Board of the Alberta Capital Region Wastewater Commission.

Board Report

Date: March 17, 2023

Subject: Board – CEO Covenant

Discussion:

As part of its Governance Policy, the Board has committed to review and reconfirm the attached Board – CEO Covenant annually. With an update to the Board appointments this Covenant should be re-executed by all parties.

We, as members of the Board of Directors, will:

- provide leadership using a governance model and guide the Commission by establishing a strategic planning framework
- set policies which reflect the best interests the Commission
- carry out our responsibilities as set out in applicable legislation to the best of our abilities
- make decisions which we believe to be in the best interests of the Commission recognizing that the needs of our members need to be thought through and reflected in such decisions
- review the background information and advice made available by the Chief Executive Officer prior to rendering a decision
- seek further input when we are unsure of the issues or uncertain as to the preferred course of action
- refrain from making any commitments on behalf of the Board other than to take the request up with the Board or Chief Executive Officer to respond appropriately
- seek to participate actively in decision-making by welcoming and encouraging diverse ideas and viewpoints and having purposeful discussion to determine which to take action on
- speak with one voice and refrain from any public or private criticism of fellow Board members or Commission staff
- conduct ourselves in an honest and ethical manner
- ensure that there is a formal evaluation of the performance of the Chief Executive Officer at least once annually and involve him in the process to ensure a full understanding of the Board’s assessment
- advocate on behalf of the Commission when necessary, with our Council and staff

I, the Chief Executive Officer, will:

- provide comprehensive orientation to new Board members as to the responsibilities and matters which are ascribed to the Board
- ensure the Board is made aware of the full picture with regard to decisions to the extent that the administration is aware of such information and ensure that the Board has access to the reasonable decision options as well as my recommendation
- provide advice, which is professionally sound, ethical, legal and in accordance to the policies and objectives of the Board
- conduct myself in an honest and ethical manner
- guide the actions of the organization so that they are aligned with the policies and objectives of the Board
- act only on the will of the Board as a whole as established by the resolutions, policies and bylaws
- seek to ensure that the Board is aware of emerging issues
- maintain a current understanding of the applicable legislation as well as relevant programs, policies, and initiatives of the Provincial and Federal governments
- listen carefully to the concerns of the Board pertaining to my performance and seek to improve any deficiencies on an ongoing basis

Kate Polkovsky

Date

Meeting Minutes

Board Meeting
Friday January 20th, 2023, 09:00 am
ACRWC WWTP Board Room

Members Present:

Dave Anderson	Strathcona County
Bill Hamilton	City of Leduc
Gordon Harris	City of Fort Saskatchewan
Harold Pawlechko	Town of Stony Plain
Stuart Houston	City of Spruce Grove
Ken Mackay	City of St. Albert
Kristina Kowalski	Parkland County
Lynn Bidney	Town of Bon Accord
Neal Comeau	Sturgeon County
Rick Smith	Leduc County
Steven vanNieuwkerk	City of Beaumont
Willis Kozak	Town of Gibbons

Members Absent:

Stephen Dafoe	Town of Morinville
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Commission Staff & Others

Kate Polkovsky	General Manager
Cindy de Bruijn	Director of Communications & Stakeholder Relations
Paul Krueger	Corporate Services Manager
Wade Teveniuk	Regulatory Services Manager
Dwayne Cikaluk	Operations Manager
Colleen Moody	Board Assistant

Call to Order:

Chair Dave Anderson called the meeting to order at 09:00 a.m.

Adoption of Agenda

CM01-23

MOVED BY Lynn Bidney THAT the agenda as distributed be adopted.

CARRIED

Board Appointments:

CM02-23

MOVED BY Steven van Nieuwkerk THAT the updated appointments to the Board be received for information.

CARRIED

Board/General Manager Covenant:

CM03-23

MOVED BY Harold Pawlechko THAT the Board/Covenant approve and sign the Board-GM Covenant

CARRIED

Adoption of 2022 11 18 Meeting Minutes

CM04-23

MOVED BY Kristina Kowalski THAT the minutes of the November 18th, 2022, meeting as presented be adopted.

CARRIED

Board Committees:

Workshop Committee

CM05-23

MOVED BY Neal Comeau THAT the ACRWC Board Workshop Committee Report be received as information.

CARRIED

Administrative Reports

CM06-23

MOVED BY Ken Mackay the Administrative Reports be received for information.

CARRIED

Easement and Right of Way Policy

CM07-23

MOVED BY Bill Hamilton THAT the Easement and Right of Way Policy report be received as information.

CARRIED

2022 Financial Audit Plan

CM08-23

MOVED BY Rick Smith THAT the 2022 Financial Audit Plan be received for information.

CARRIED

Transmission Main Update:

CM09-23

MOVED BY Willis Kozak THAT the Board receive the Transmission System Update as information.

CARRIED

Advocacy Update:

CM10-23

MOVED BY Harold Pawlechko THAT the Board receive the Advocacy Update as information.

CARRIED

Closed Session:

CM11-23

MOVED BY Ken Mackay THAT the Board move to closed session.

CARRIED

CM12-23

MOVED BY Harold Pawlechko THAT the Board come out of closed session.

CARRIED

CM13-23

MOVED BY Ken Mackay THAT the Board Update the naming of the General Manager to the Chief Executive Officer and update the necessary bylaws and policies through 2023 and 2024.

CARRIED

Communications:

CM14-23

MOVED BY Harold Pawlechko THAT the Communications Report as presented be received as information.

CARRIED

- a. Correspondence
- b. Reporting In
- c. Reporting Out
- d. Conference Attendance

Adjourn

Chair Dave Anderson adjourned the meeting 10:45 a.m.

These minutes approved this _____ day of _____, 2023

ACRWC Board Chairman

General Manager

Recorder:
Colleen Moody
Board Assistant

Board Report

Date: March 17, 2023

Subject: 2022 Audited Financial Statements and Financial Information Return

Recommendation

THAT the attached 2022 audited financial statements and financial information return be approved by the Board.

THAT the attached audit findings report be received for information.

THAT the attached 2022 Financial Report and Comparisons be received for information.

Discussion

The attached Audited Financial Statements and Financial Information Report prepared by management will be presented to the Board.

Rob Jolley and Leah Faucher from Ernst & Young LLP will present the attached audit findings report.

Under Part 15-1 – Regional Services Commissions, Sections 602.35 to 602.37 of the Municipal Government Act require the preparation and distribution of audited annual financial statements and a financial information return to the Minister by May 1 of the year following the year for which the return and statements have been prepared.

Prepared by: Paul Krueger, Director of Corporate Services

Approved by: Kate Polkovsky, Chief Executive Officer

Financial Statements of
ALBERTA CAPITAL REGION WASTEWATER COMMISSION
December 31, 2022

DRAFT

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2022
(in 000's)

	2022	2021
FINANCIAL ASSETS		
Cash	\$ 9,070	\$ 9,414
Receivables from Commission members (Note 13)	3,800	3,588
Other receivables	1,064	887
Investments (Note 4)	19,388	9,099
	<u>33,322</u>	<u>22,988</u>
LIABILITIES		
Accounts payable and accrued liabilities (Note 13)	10,123	6,038
Debt (Notes 5,12)	54,516	48,972
Deferred revenues	375	375
Other liabilities	425	397
	<u>65,439</u>	<u>55,782</u>
NET DEBT	<u>(32,117)</u>	<u>(32,794)</u>
NON-FINANCIAL ASSETS		
Tangible capital assets (Note 6)	235,629	225,765
Inventory held for consumption	932	958
Prepaid expenses	132	99
	<u>236,693</u>	<u>226,822</u>
ACCUMULATED SURPLUS (Note 8)	<u>\$ 204,576</u>	<u>\$ 194,028</u>
Contractual commitments and contingent liabilities (Note 10)		

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

	2022 Actual	2022 Budget	2021 Actual
REVENUES			
Treatment charges (Note 13)	\$ 51,612	\$ 49,612	\$ 48,781
Investment income	443	24	30
Government transfers	136	100	783
Other revenue	72	73	94
Total revenues	52,263	49,809	49,688
EXPENSES (Note 9)			
Plant/pump station	36,788	35,933	33,059
Corporate services	2,256	2,165	2,077
Engineering	1,130	1,264	959
Regulatory services	1,402	1,501	1,298
Board	139	139	111
Total expenses	41,715	41,002	37,504
Excess of revenues over expenses	10,548	8,807	12,184
Accumulated surplus at beginning of year	194,028	194,028	181,844
Accumulated surplus at end of year	\$ 204,576	\$ 202,835	\$ 194,028

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ALBERTA CAPITAL REGION WASTEWATER COMMISSION
STATEMENT OF CHANGE IN NET DEBT
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

	2022 Actual	2022 Budget	2021 Actual
Excess of revenues over expenses	\$ 10,548	\$ 8,807	\$ 12,184
Acquisition of tangible capital assets	(19,299)	(28,400)	(13,997)
Amortization of tangible capital assets	8,818	9,400	8,643
Loss on disposal of tangible capital assets	617	-	404
Change in inventory held for consumption	26	-	(104)
Change in prepaid expenses	(33)	-	46
	<hr/>	<hr/>	<hr/>
Change in net debt	677	(10,193)	7,176
Net debt at beginning of year	(32,794)	(32,794)	(39,970)
	<hr/>	<hr/>	<hr/>
Net debt at end of year	\$ (32,117)	\$ (42,987)	\$ (32,794)

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ALBERTA CAPITAL REGION WASTEWATER COMMISSION
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

	2022	2021
Cash flows from operating transactions		
Cash receipts from members, government transfers and other	\$ 51,429	\$ 49,295
Cash paid to employees	(6,540)	(6,365)
Cash paid to suppliers	(24,277)	(21,294)
Interest received	398	30
Interest on debt	(1,289)	(1,284)
Deferred revenue	-	375
	<u>19,721</u>	<u>20,757</u>
Cash flows from capital transactions		
Acquisition of tangible capital assets	(15,365)	(12,659)
Cash flows from investing transactions		
Increase in investments	(10,245)	(9,027)
Cash flows from financing transactions		
Proceeds from debt	10,000	6,000
Repayment of debt	(4,455)	(3,994)
	<u>5,545</u>	<u>2,006</u>
Increase (decrease) in cash	(344)	1,077
Cash at beginning of year	9,414	8,337
Cash at end of year	<u>\$ 9,070</u>	<u>\$ 9,414</u>

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ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

1. NATURE OF THE ORGANIZATION

The Alberta Capital Region Wastewater Commission (the "Commission") is constituted under the *Municipal Government Act*. Alberta Regulation 129/85 established the Commission in May 1985 for the purposes of constructing, maintaining, controlling, and managing a regional wastewater treatment system.

The members of the Commission include City of Beaumont, City of Fort Saskatchewan, City of Leduc, City of Spruce Grove, City of St. Albert, Town of Bon Accord, Town of Gibbons, Town of Morinville, Town of Stony Plain, Leduc County, Parkland County, Strathcona County, and Sturgeon County.

The Commission is exempt from income taxation under section 149 of the *Income Tax Act* (Canada).

2. SIGNIFICANT ACCOUNTING POLICIES

The financial statements are prepared by management in accordance with Canadian public sector accounting standards and reflect the following policies:

Basis of Accounting

The financial statements are prepared using the accrual basis of accounting. Revenues are recognized in the period in which the transactions or events occur and are measurable. Expenses are recognized in the period goods and services are consumed, or a liability is incurred.

Investments

Investments consist of guaranteed investment certificates and deposits that are redeemable at the Commission's discretion. When there has been a loss in value that is other than a temporary decline in value, the respective investment is written down to recognize the loss.

Revenue Recognition

Government transfers are recognized in the financial statements as revenues in the period in which events giving rise to the transfer occur, providing the transfers are authorized, any eligibility criteria have been met, and reasonable estimates of the amounts can be made.

Treatment charges, investment and other revenue are recognized as revenue when earned and collection is reasonably assured.

Non-financial Assets

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

(i) Tangible capital assets

Tangible capital assets are recorded at cost, which includes amounts that are directly attributable to acquisition, construction, development or betterment of the asset. The cost, less residual value, of the tangible capital assets is amortized on a straight-line basis over their estimated useful lives as follows:

Asset	Useful Life - Years
Engineering Structures	5 - 75
Machinery & Equipment	10

Assets under construction are not amortized until the asset is available for productive use.

(ii) Contributions of tangible capital assets

Tangible capital assets received as contributions are recorded at their fair value at the date of receipt and also are recorded as revenue.

(iii) Interest capitalization

The Commission does not capitalize interest costs associated with the acquisition or construction of a tangible capital asset.

(iv) Leased tangible capital assets

Leases that transfer substantially all of the benefits and risks incidental to ownership of property are accounted for as leased tangible capital assets. All other leases are accounted for as operating leases and the related payments are charged to expenses as incurred.

(v) Inventory held for consumption

Inventory held for consumption consists of spare parts used in the maintenance of Commission facilities and is valued at the lower of cost or replacement costs. Inventory items issued out are expensed to materials, goods, supplies and utilities. The cost of inventory is assigned by using the first-in, first-out cost formula.

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

Use of Estimates

The preparation of financial statements in conformity with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Accounts receivable are stated after evaluation as to their collectability and an appropriate allowance for doubtful accounts is provided where considered necessary. Amortization is based on the estimated useful lives of tangible capital assets. Actual results could differ from those estimates.

Deferred Revenues

Deferred revenues represent amounts received for which the related activities have yet to be performed. These amounts will be recognized as revenues in the period that the activities are performed.

3. FINANCIAL INSTRUMENTS

The Commission's financial instruments consist of cash, investments, receivables from Commission members, other receivables, accounts payable and accrued liabilities, debt and other liabilities. It is management's opinion that the Commission is not exposed to significant interest, currency, or credit risk arising from these financial instruments. Long-term debt is initially recorded at fair value and subsequently measured at amortized cost using the effective interest rate method. Unless otherwise noted, except for the long-term debt, the fair value of these financial instruments approximates their carrying value.

4. INVESTMENTS

Investments consist of a notice demand account that bears interest at rates between 1.65% and 6.45% (2021 - 1.65% and 2.45%) with a maturity date of no more than 90 days' notice (2021 - 90 days' notice).

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

5. DEBT

	2022	2021
Debenture payable to the Province of Alberta due in semi-annual instalments of \$217 including principal and interest, bears interest at 3.569% and matures June 15, 2026.	\$ 1,414	\$ 1,787
Debenture payable to the Province of Alberta due in semi-annual instalments of \$246 including principal and interest, bears interest at 2.769% and matures March 15, 2027.	2,066	2,492
Debenture payable to the Province of Alberta due in semi-annual instalments of \$243 including principal and interest, bears interest at 2.599% and matures September 17, 2027.	2,263	2,682
Debenture payable to the Province of Alberta due in semi-annual instalments of \$347 including principal and interest, bears interest at 3.586% and matures September 16, 2028.	3,718	4,264
Debenture payable to the Province of Alberta due in semi-annual instalments of \$123 including principal and interest, bears interest at 2.814% and matures September 15, 2029.	1,557	1,755
Debenture payable to the Province of Alberta due in semi-annual instalments of \$120 including principal and interest, bears interest at 2.385% and matures September 15, 2030.	1,732	1,926
Debenture payable to the Province of Alberta due in semi-annual instalments of \$287 including principal and interest, bears interest at 2.768% and matures December 15, 2032.	4,979	5,406
Debenture payable to the Province of Alberta due in semi-annual instalments of \$209 including principal and interest, bears interest at 3.051% and matures September 17, 2033.	3,880	4,173
Debenture payable to the Province of Alberta due in semi-annual instalments of \$84 including principal and interest, bears interest at 3.051% and matures September 17, 2033.	1,552	1,669
Debenture payable to the Province of Alberta due in semi-annual instalments of \$211 including principal and interest, bears interest at 3.201% and matures December 17, 2033.	3,890	4,181
Debenture payable to the Province of Alberta due in semi-annual instalments of \$124 including principal and interest, bears interest at 2.872% and matures March 15, 2034.	2,410	2,585
Debenture payable to the Province of Alberta due in semi-annual instalments of \$121 including principal and interest, bears interest at 2.552% and matures December 16, 2034.	2,488	2,663

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

5. DEBT (continued)

Debenture payable to the Province of Alberta due in semi-annual instalments of \$194 including principal and interest, bears interest at 2.033 % and matures June 15, 2035.	4,268	4,565
Debenture payable to the Province of Alberta due in semi-annual instalments of \$114 including principal and interest, bears interest at 1.789 % and matures December 15, 2035.	2,645	2,824
Debenture payable to the Province of Alberta due in semi-annual instalments of \$233 including principal and interest, bears interest at 2.040 % and matures September 15, 2036.	5,654	6,000
Debenture payable to the Province of Alberta due in semi-annual instalments of \$467 including principal and interest, bears interest at 4.650 % and matures December 15, 2037.	10,000	-
	<u>\$ 54,516</u>	<u>\$ 48,972</u>

Debt principal and interest amounts in each of the next five years and thereafter are as follows:

	Principal	Interest	Total
2023	\$ 5,055	\$ 1,623	\$ 6,678
2024	5,207	1,471	6,678
2025	5,364	1,314	6,678
2026	5,309	1,152	6,461
2027	5,002	996	5,998
Balance to maturity	28,579	3,815	32,394
	<u>\$ 54,516</u>	<u>\$ 10,371</u>	<u>\$ 64,887</u>

The Commission has a demand operating line of credit available for use, up to a maximum of \$2,000 bearing interest at prime rate (2021 - prime rate) and unsecured. As at December 31, 2022, nil (2021 - nil) was drawn against the available operating line of credit.

6. TANGIBLE CAPITAL ASSETS

	Land	Engineering Structures	Machinery & Equipment	2022 Totals	2021 Totals
Cost:					
Balance at beginning of year	\$ 2,347	\$ 369,418	\$ 998	\$ 372,763	\$ 359,608
Additions	-	19,178	121	19,299	13,997
Disposals	-	(1,311)	(10)	(1,321)	(842)
Cost at end of year	<u>2,347</u>	<u>387,285</u>	<u>1,109</u>	<u>390,741</u>	<u>372,763</u>
Accumulated amortization:					
Balance at beginning of year	-	146,142	856	146,998	138,793
Amortization in the year	-	8,751	67	8,818	8,643
Accumulated amortization disposals	-	(694)	(10)	(704)	(438)
Accumulated amortization at end of year	<u>-</u>	<u>154,199</u>	<u>913</u>	<u>155,112</u>	<u>146,998</u>
Net book value	<u>\$ 2,347</u>	<u>\$ 233,086</u>	<u>\$ 196</u>	<u>\$ 235,629</u>	<u>\$ 225,765</u>

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

6. TANGIBLE CAPITAL ASSETS (continued)

The net book value of tangible capital assets includes \$9,285 (2021 - \$7,995) related to engineering structures in design or under construction that are not amortized in the year. Contributed tangible capital assets in 2022 were nil (2021 - nil).

7. EQUITY IN TANGIBLE CAPITAL ASSETS

	2022	2021
Tangible capital assets	\$ 390,741	\$ 372,763
Accumulated amortization	(155,112)	(146,998)
Long-term debt	(54,516)	(48,972)
	\$ 181,113	\$ 176,793

8. ACCUMULATED SURPLUS

	2022	2021
Reserves		
Capital	\$ 17,208	\$ 11,366
Operating	6,255	5,869
	23,463	17,235
Equity in tangible capital assets (Note 7)	181,113	176,793
Total accumulated surplus	\$ 204,576	\$ 194,028

The capital reserve sets aside funds for the purpose of financing future capital acquisitions and development. This reserve is funded from annual surplus funds and disposals of capital assets. Surplus funds in excess of the required contribution to the operating reserve are contributed to the capital reserve.

The operating reserve was established to provide rate stability and to provide funds for years when unforeseen expenses or lost revenues accrue. It is maintained at a minimum balance of 10% and maximum of 15% of annual gross revenue. Increases to the reserve are funded from the annual surplus.

9. EXPENSES BY OBJECT

	2022 Actual	2022 Budget	2021 Actual
Salaries and benefits	\$ 6,568	\$ 6,626	\$ 6,327
Contracted and general services	19,165	18,550	16,410
Materials, goods, supplies and utilities	4,920	3,893	4,065
Purchased from other governments	336	1,111	357
Interest	1,291	1,422	1,298
Amortization	8,818	9,400	8,643
Loss on disposal of tangible capital assets	617	-	404
	\$ 41,715	\$ 41,002	\$ 37,504

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

10. CONTRACTUAL COMMITMENTS AND CONTINGENT LIABILITIES

In the normal course of operations, the Commission may be subject to various claims and legal actions. Based on the information available, management believes that the resolution of such matters will not have a material adverse effect on the Commission's financial position.

In 2022, the Commission extended a contract with Instinct Trucking Ltd. to haul biosolids. This contract expires in 2023 with a potential additional one-year extension.

In 2022, the Commission entered into a contract with Direct Energy Marketing Limited to supply natural gas. This agreement expires in 2026.

In 2021, the Commission entered into a biosolids management contract effective 2022 with EPCOR Water Service Inc. This agreement has a ten-year notice before it can expire.

In 2018, the Commission entered into a contract with ENMAX Energy Corporation to supply electricity. This agreement expires in 2023.

In 2008, the Commission entered into the Regional Wastewater Exchange Agreement with the City of Edmonton. This agreement expires in 2028. In 2019, the agreements were officially transferred to EPCOR Water Service Inc.

As of December 31, 2022, the Commission has contractual commitments for work still outstanding for the following projects:

- Plant MBR Train 4 Upgrade for \$5,796, with \$5,501 of work still outstanding. Completion expected in 2025.
- 5kv Switchgear Upgrade for \$2,524, with \$2,440 of work still outstanding. Completion expected in 2023.
- Alum System Upgrade for \$1,552, with \$1,317 of work still outstanding. Completion expected in 2023.
- Parkland Gravity Transmission System Upgrade for \$15,512, with \$14,698 of work still outstanding. Completion expected in 2024.
- South East Transmission System North Upgrade for \$10,606, with \$10,418 of work still outstanding. Completion expected in 2023.
- Spruce Grove Wet Weather Facility for \$5,968, with \$2,754 of work still outstanding. Completion expected in 2023.
- Parkland Pumpstation HVAC Upgrades for \$1,898, with \$1,290 of work still outstanding. Completion expected in 2023.
- Fort Sask. Pumpstation Generator System Upgrades for \$4,503, with \$4,307 of work still outstanding. Completion expected in 2023.

In 2021, a major blockage occurred that caused a bypass into the North Saskatchewan River. The incident is being investigated by Environment Canada and Alberta Environment. The Commission has completed an internal root cause analysis and is working with its insurers and the contractor to negotiate recoverable expenses. (See note 13).

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

11. LOCAL AUTHORITIES PENSION PLAN

All eligible employees of the Commission participate in the Local Authorities Pension Plan (“LAPP”) under the *Public Sector Pension Plans Act*. Required contributions by the Commission to the LAPP are 8.45% (2021 - 9.39%) of pensionable earnings up to the year’s pensionable earnings maximum under the Canada Pension Plan and 12.80% (2021 - 13.84%) on pensionable earnings above this amount. Employees are required to contribute 7.45% (2021 - 8.39%) of pensionable salary up to the year’s maximum pensionable salary and 11.80% (2021 - 12.84%) on pensionable salary above this amount.

Contributions for current service are recorded as expenditures in the year in which they become due. Contributions made during the year by the Commission and its employees were \$495 and \$446, respectively (2021 - \$505 by the Commission and \$459 from its employees).

At December 31, 2021, the LAPP disclosed an actuarial surplus of \$11,922 million.

12. DEBT LIMITS

Section 3 of Alberta Regulation No. 76/2000 requires that debt and debt servicing limits for the Commission be disclosed as follows:

	2022	2021
Total debt limit	\$ 104,254	\$ 97,810
Total debt	54,516	48,972
Amount of total debt limit remaining	\$ 49,738	\$ 48,838
Debt servicing limit	\$ 18,245	\$ 17,117
Debt servicing	6,678	5,744
Amount of total debt servicing remaining	\$ 11,567	\$ 11,373

The debt limit is calculated at 2 times revenue of the Commission (as defined in Alberta Regulation No. 76/2000) and the debt servicing limit is calculated at 0.35 times such revenue. Incurring debt beyond these limitations requires approval by the Minister of Municipal Affairs. These thresholds are guidelines used by Alberta Municipal Affairs to identify commissions that could be at financial risk if further debt is acquired. The calculation taken alone does not represent the financial stability of the Commission. Rather, the financial statements must be interpreted as a whole.

The Commission has a debt management policy with a self-imposed debt limit of 1.5 times revenue. The total debt limit calculated using 1.5 times revenue is \$78,191, with \$23,675 total debt limit remaining.

ALBERTA CAPITAL REGION WASTEWATER COMMISSION
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2022
(in 000's)

13. RELATED PARTY TRANSACTIONS

The municipalities that are members of the Commission are considered to be related parties.

At year-end, receivables from Commission members include a total of \$3,800 (2021 - \$3,588) receivable from the various member municipalities, and accounts payable and accrued liabilities include \$55 (2021 - \$1) payable to various member municipalities.

Revenues generated include \$44,734 (2021 - \$42,461) paid by member municipalities.

Contracted and general services include \$341 (2021 - \$284) paid to Strathcona County for transmission maintenance services. There is a \$1,100 dispute from the Commission's 2021 major blockage incident that is being negotiated through its insurance providers (*See Note 10*).

These transactions are in the normal course of operations and are measured at the exchange amounts as established and agreed to by the related parties.

14. APPROVAL OF FINANCIAL STATEMENTS

The Board of Directors and management have approved these financial statements.

DRAFT

COMMISSION FINANCIAL INFORMATION RETURN

For the Year Ending December 31, 2022

Commission Name:

ALBERTA CAPITAL REGION
WASTEWATER COMMISSION

CERTIFICATION

The information contained in this Financial Information Return is presented fairly to the best of my knowledge.

Paul Krueger

Print Name

March 17, 2023

Date

FINANCIAL POSITION

Schedule 9A

	Total 1
Assets	0010
Cash and Temporary Investments	0020 28,458,538
Receivable From Commission Members	0070 3,800,569
Loans Receivable	0080
Trade and Other Receivables	0090 1,063,635
Inventory for Consumption	0120
Inventories Held for Resale	0130
. Land	0140
. Other	0150
Long Term Investments	0170
. Federal Government	0180
. Provincial Government	0190
. Local Governments	0200
. Other	0210
Other Current Assets	0230
Other Long Term Assets	0240
Total Financial Assets	0250
	0260 33,322,742
Liabilities	0270
Temporary Loans Payable	0280
Payable To Other Governments	0290 301,118
Accounts Payable & Accrued Liabilities	0300 10,246,963
Deposit Liabilities	0310
Deferred Revenue	0340 375,000
Long Term Debt	0350 54,516,480
Other Current Liabilities	0360
Asset Retirement Obligations.....	0365
Other Long Term Liabilities	0370
Total Liabilities	0380
	0390 65,439,561
Net Financial Assets (Net Debt)	0395 -32,116,819
Non Financial Assets	0400
Tangible Capital Assets.....	0400 235,629,474
Inventory for Consumption.....	0410 931,803
Prepaid Expenses	0420 131,778
Other.....	0430
Total Non-Financial Assets	0440 236,693,055
Accumulated Surplus	0450 204,576,236

CHANGE IN OPERATING ACCUMULATED SURPLUS

Schedule 9B

		Unrestricted	Restricted	Equity in TCA	Total
		1	2	3	4
Accumulated Operating Surplus - Beginning of Year	0500		17,234,880	176,793,377	194,028,257
Net Revenue (Expense)	0505	10,547,979			10,547,979
Funds Designated For Future Use	0511	-5,841,695	5,841,695		
Restricted Funds - Used for Operations	0512	-386,667	386,667		
Restricted Funds - Used for TCA	0513				
Current Year Funds Used for TCA	0514	-9,299,124		9,299,124	
Donated and Contributed TCA	0516				
Disposals of TCA	0517	617,027		-617,027	
Annual Amortization Expense	0518	8,817,598		-8,817,598	
Long Term Debt - Issued	0519			-10,000,000	-10,000,000
Long Term Debt - Repaid	0521	-4,455,118		4,455,118	
Capital Debt - Used for TCA	0522			10,000,000	10,000,000
	0523				
Other Adjustments	0524				
Accumulated Operating Surplus - End of Year	0525		23,463,242	181,112,994	204,576,236

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FINANCIAL ACTIVITIES BY TYPE / OBJECT

Schedule 9D

		Total 1
Revenues	1700	
Service Fees Charged to Commission Members.....	1790	51,612,417
Other Fees and User Charges	1800	
Licenses and Permits	1820	
Franchise and Concession Contracts	1840	
Returns on Investments	1850	442,625
Rentals	1860	
Insurance Proceeds	1870	
Net Gain on Sale of Tangible Capital Assets	1880	
Contributed and Donated Assets.....	1885	
Federal Government Unconditional Transfers	1890	
Federal Government Conditional Transfers	1900	135,804
Provincial Government Unconditional Transfers	1910	
Provincial Government Conditional Transfers	1920	
Local Government Transfers	1930	
Other Revenues	1970	72,182
Total Revenue	1980	52,263,028
Expenses	1990	
Salaries, Wages, and Benefits	2000	6,567,970
Contracted and General Services	2010	19,165,395
Purchases from Other Governments	2020	336,376
Materials, Goods, Supplies, and Utilities	2030	4,919,991
Provision for Allowances	2040	
Transfers to Governments	2050	
Bank Charges and Short Term Interest	2080	
Interest on Operating Long Term Debt	2090	
Interest on Capital Long Term Debt	2100	1,290,692
Accretion of Asset Retirement Obligations.....	2105	
Amortization of Tangible Capital Assets	2110	8,817,598
Net Loss on Sale of Tangible Capital Assets.....	2125	617,027
Write Down of Tangible Capital Assets.....	2127	
Other Expenditures	2130	
Total Expenses	2140	41,715,049
Net Revenue (Expense)	2150	10,547,979

REMEASUREMENT GAINS AND LOSSES

Schedule 9Q

Accumulated remeasurement gains (losses) at beginning of the year	2171	
Gains	2172	
Losses	2174	
Amounts reclassified to Statement of Operations	2176	
Net Remeasurement gains (losses) for the year	2178	
Accumulated remeasurement gains (losses) at end of year	2180	

TANGIBLE CAPITAL ASSETS SUPPLEMENTARY DETAIL

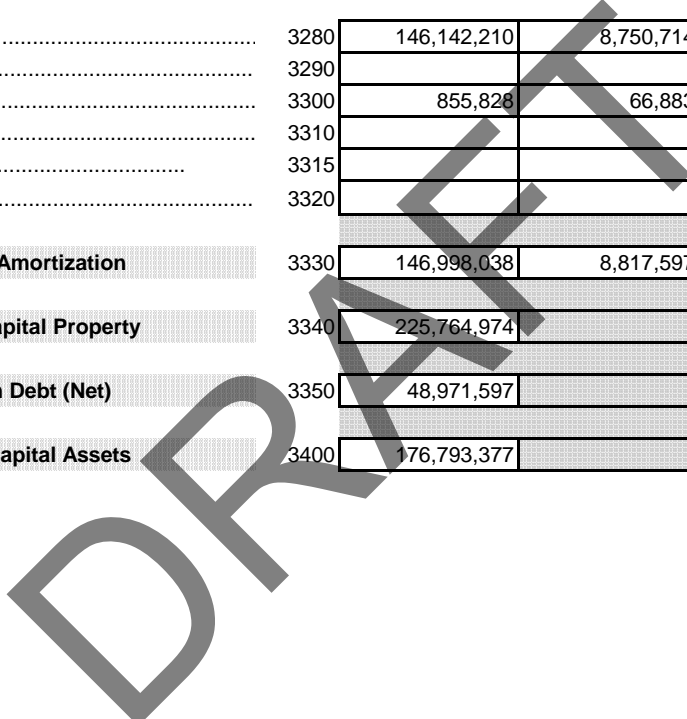
Schedule 9F

		Capital Long Term Debt	
		Principal Additions	Principal Reductions
		1	2
General Government	2700		
Council and Other Legislative	2710		
General Administration	2720		
Other General Government.....	2730		
Protective Services	2740		
Police	2750		
Fire	2760		
Disaster and Emergency Measures	2770		
Ambulance and First Aid	2780		
Bylaws Enforcement	2790		
Other Protective Services.....	2800		
Transportation	2810		
Common and Equipment Pool	2820		
Roads, Streets, Walks, Lighting	2830		
Airport	2840		
Public Transit	2850		
Storm Sewers and Drainage	2860		
Other Transportation	2870		
Environmental Use and Protection	2880		
Water Supply and Distribution	2890		
Wastewater Treatment and Disposal	2900	10,000,000	4,455,118
Waste Management	2910		
Other Environmental Use and Protection	2920		
Public Health and Welfare	2930		
Family and Community Support	2940		
Day Care	2950		
Cemeteries and Crematoriums	2960		
Other Public Health and Welfare	2970		
Planning and Development	2980		
Land Use Planning, Zoning and Development	2990		
Economic/Agricultural Development	3000		
Subdivision Land and Development	3010		
Public Housing Operations	3020		
Land, Housing and Building Rentals	3030		
Other Planning and Development.....	3040		
Recreation and Culture	3050		
Recreation Boards	3060		
Parks and Recreation	3070		
Culture: Libraries, Museums, Halls	3080		
Convention Centres	3090		
Other Recreation and Culture.....	3100		
Other Utilities	3105		
Gas	3106		
Electric	3107		
Other	3110		
Total	3120	10,000,000	4,455,118

CHANGE IN TANGIBLE CAPITAL ASSETS

Schedule 9G

		Balance at Beginning of Year 1	Additions 2	Reductions 3	Balance at End of Year 4
Tangible Capital Assets - Cost					
Engineered Structures	3210	369,418,105	19,178,185	1,311,001	387,285,289
Construction In Progress.....	3219				
Buildings	3220				
Machinery and Equipment	3230	997,855	120,939	9,696	1,109,098
Land	3240	2,347,052			2,347,052
Land Improvements.....	3245				
Vehicles	3250				
Total Capital Property Cost	3260	372,763,012	19,299,124	1,320,697	390,741,439
Accumulated Amortization					
Engineered Structures	3280	146,142,210	8,750,714	693,974	154,198,950
Buildings	3290				
Machinery and Equipment	3300	855,826	66,883	9,696	913,015
Land	3310				
Land Improvements.....	3315				
Vehicles	3320				
Total Accumulated Amortization	3330	146,998,038	8,817,597	703,670	155,111,965
Net Book Value of Capital Property	3340	225,764,974			235,629,474
Capital Long Term Debt (Net)	3350	48,971,597			54,516,480
Equity in Tangible Capital Assets	3400	176,793,377			181,112,994



LONG TERM DEBT SUPPORT

Schedule 9H

		Operating Purposes 1	Capital Purposes 2	Total 3
Long Term Debt Support	3405			
Supported by Utility Rates	3430		54,516,480	54,516,480
Other	3440			
Total Long Term Debt Principal Balance	3450		54,516,480	54,516,480

LONG TERM DEBT SOURCES

Schedule 9I

		Operating Purposes 1	Capital Purposes 2	Total 3
Alberta Capital Finance Authority.....	3500		54,516,480	54,516,480
Other	3610			
Total Long Term Debt Principal Balance	3620		54,516,480	54,516,480

FUTURE LONG TERM DEBT REPAYMENTS

Schedule 9J

		Operating Purposes 1	Capital Purposes 2	Total 3
Principal Repayments by Year	3700			
Current + 1	3710		5,055,054	5,055,054
Current + 2	3720		5,207,136	5,207,136
Current + 3	3730		5,364,075	5,364,075
Current + 4	3740		5,309,349	5,309,349
Current + 5	3750		5,002,382	5,002,382
Thereafter	3760		28,578,484	28,578,484
Total Principal	3770		54,516,480	54,516,480
Interest by Year	3780			
Current + 1	3790		1,622,729	1,622,729
Current + 2	3800		1,470,647	1,470,647
Current + 3	3810		1,313,708	1,313,708
Current + 4	3820		1,151,745	1,151,745
Current + 5	3830		996,260	996,260
Thereafter	3840		3,816,101	3,816,101
Total Interest	3850		10,371,190	10,371,190

DEBT LIMIT

Schedule 9AA

1

Debt Limit	5700	104,254,448
Total Debt	5710	54,516,480
Debt Service Limit	5720	18,244,528
Total Debt Service Costs	5730	6,677,783

Enter prior year Line 3450 Column 2 balance here:

48,971,597

EDIT LIST - PLEASE REVIEW AND CORRECT ANY ERRORS NOTED BELOW

DRAFT

2022 Financial Report and Comparisons

March 17, 2023



**Alberta Capital Region
Wastewater Commission**

Statement of Operations in (000's)

	2018	2019	2020	2021	2022	2022
	Actual	Actual	Actual	Actual	Actual	Budget
Revenues	39,546	40,448	43,890	49,688	52,263	49,809
Operation and Maintenance						
Salaries and Benefits	3,204	3,312	3,472	3,457	3,604	3,595
Contract maint. and Mat.	3,379	2,504	2,380	2,213	3,114	3,221
Utilities	2,021	2,163	2,089	2,419	2,887	2,291
Biosolids Mgt	4,463	5,375	6,320	5,690	6,182	6,111
External treatment	6,819	7,703	8,250	8,337	9,556	9,183
Amortization	7,645	7,895	9,399	9,048	9,435	9,400
Financing costs	1,049	1,257	1,278	1,298	1,291	1,422
Other	554	532	590	596	720	710
	29,134	30,741	33,778	33,059	36,788	35,933
Regulatory Services	1,278	1,307	1,311	1,298	1,402	1,501
Corporate Services	1,985	1,956	2,114	2,077	2,256	2,165
Engineering	1,137	1,027	899	959	1,130	1,264
Board	134	98	117	112	139	139
Total Expenses	33,667	35,130	38,219	37,504	41,715	41,002
Excess of revenues over expenses*	5,879	5,318	5,318	12,671	10,548	8,807

*The Capital program is funded through reserves, excess revenues over expenses and debentures. Excess revenues over expenses are also used to help maintain the operating reserve fund.

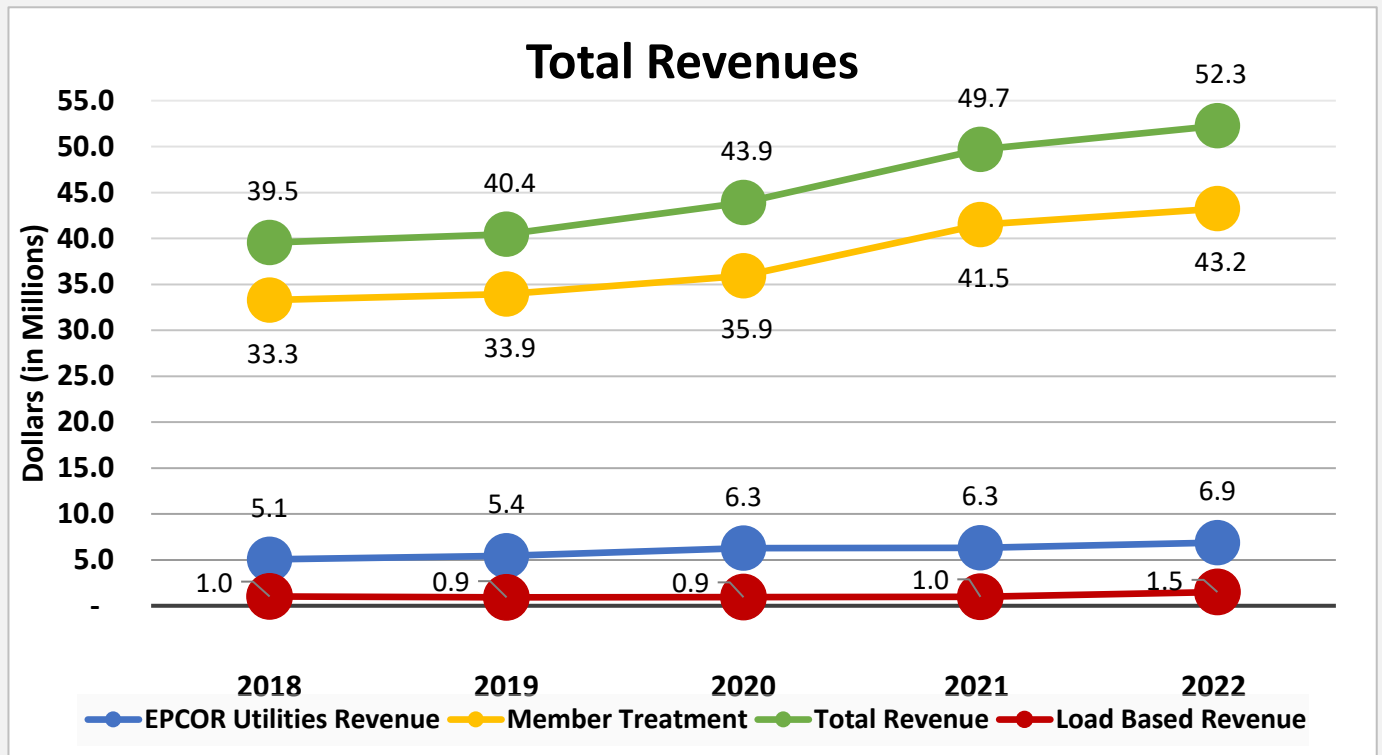


2022 Financial Highlights and Comparisons

Revenues

The 2022 Revenues generated \$52.3 million which is a ~\$2.5 million (4.9%) increase to the budget. Attributed differences to budget:

- Revenues from Member Municipalities- increase of ~\$1.5 million
- Revenues from Load Based Charges- decrease of ~\$0.5 million
- Revenues from Interest Income- decrease of ~\$0.4 million

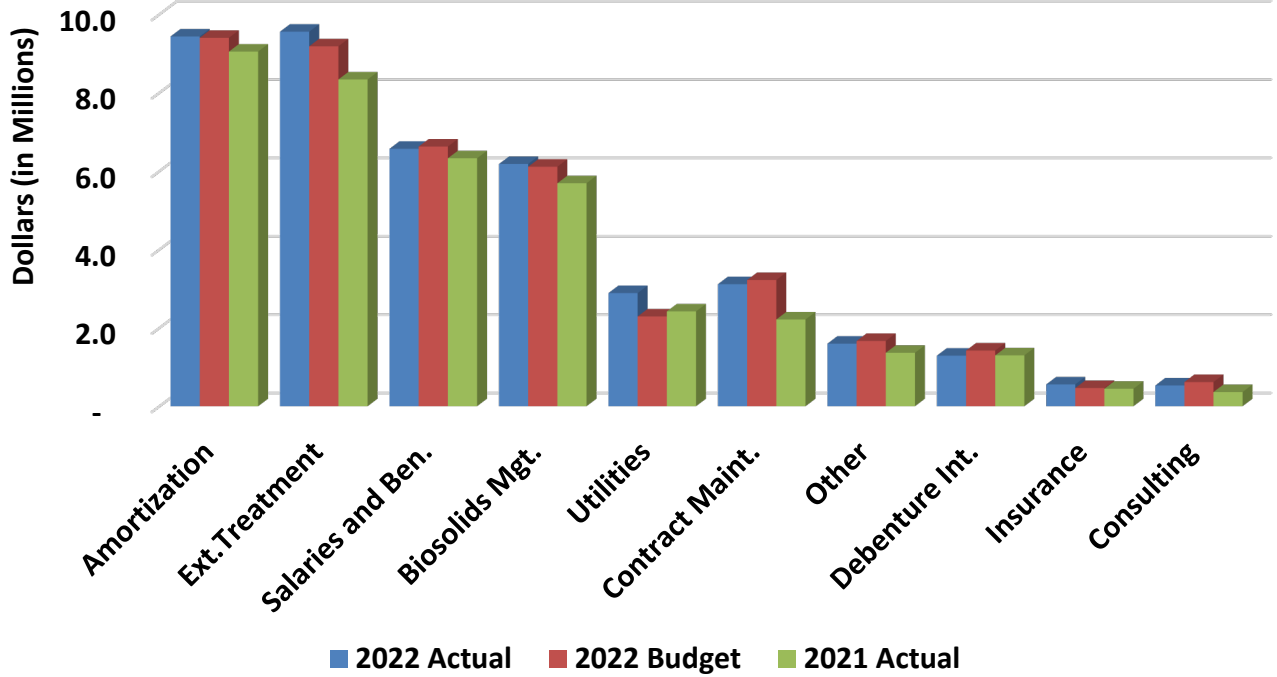


Expenses

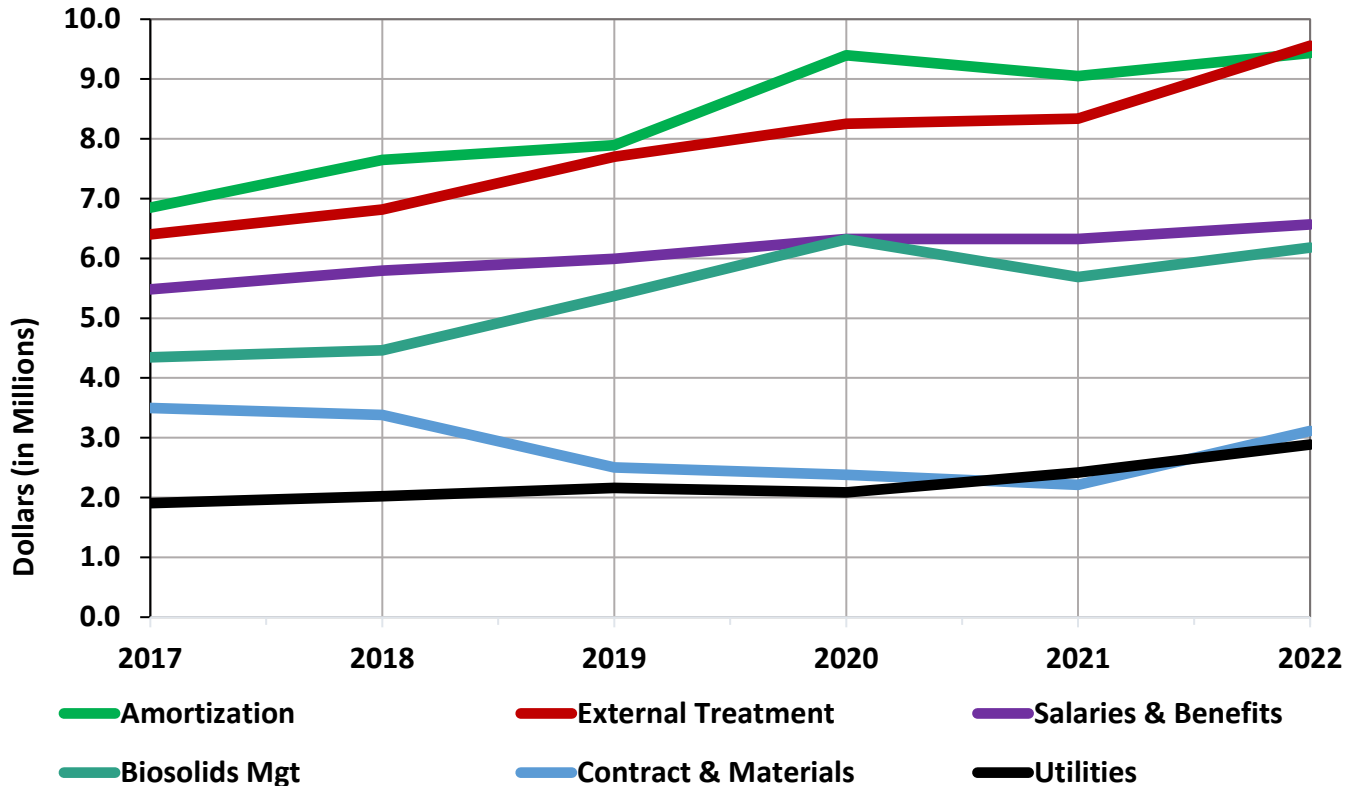
The 2022 expenses were \$41.7 million which is a \$0.7 million (1.7%) increase to the budget. Attributed differences to the budget:

- Utilities- increase of ~\$0.6 million
- External Treatment- increase of ~\$0.4 million
- Contract Maintenance- decrease of ~\$0.1 million
- Debenture Interest- decrease of ~\$0.1 million

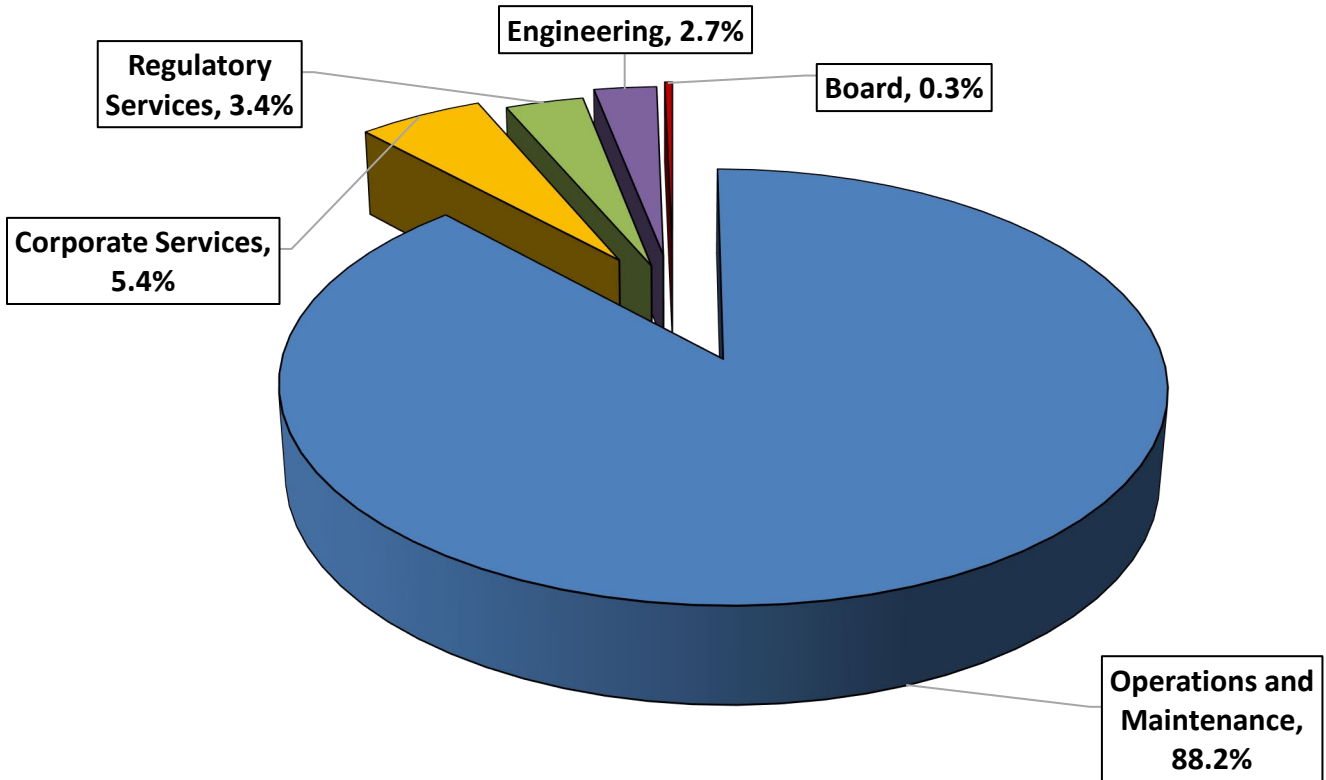
2022 vs Budget vs 2021 Cost Driver Comparison



Expense by Cost Drivers



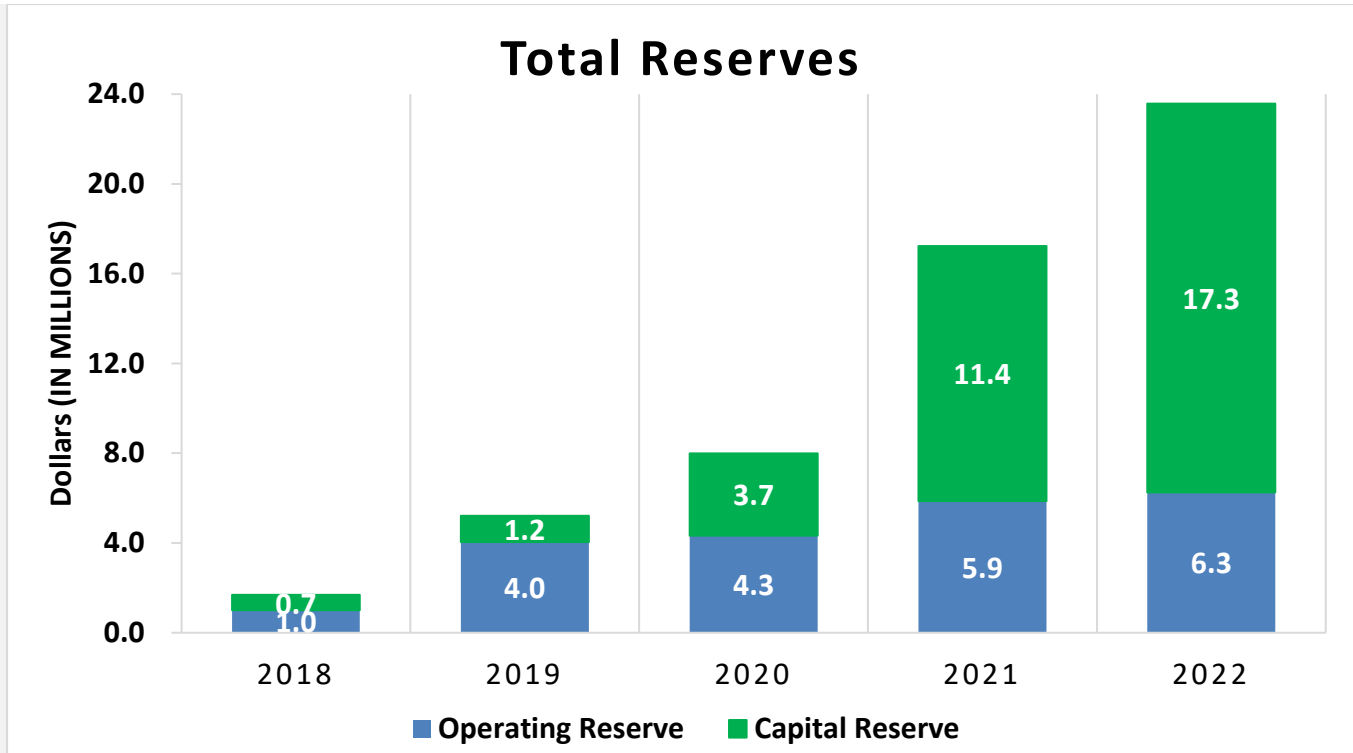
Costs by Department



Equity in Tangible Capital Assets and Total Accumulated Surplus

The equity in tangible capital assets increased \$4.3 million (2.4%) to 181.1 million while our total accumulated surplus increased by \$10.5 million (5.4%) to 204.6 million.

	2022	2021
Tangible capital assets	\$390,741	\$372,763
Accumulated amortization	(155,112)	(146,998)
Long-term debt	(54,516)	(48,972)
Equity in tangible Capital Assets	\$181,113	\$176,793
Capital Reserve	17,208	11,366
Operating Reserve	6,255	5,869
Total Accumulated Surplus	\$204,576	\$194,028



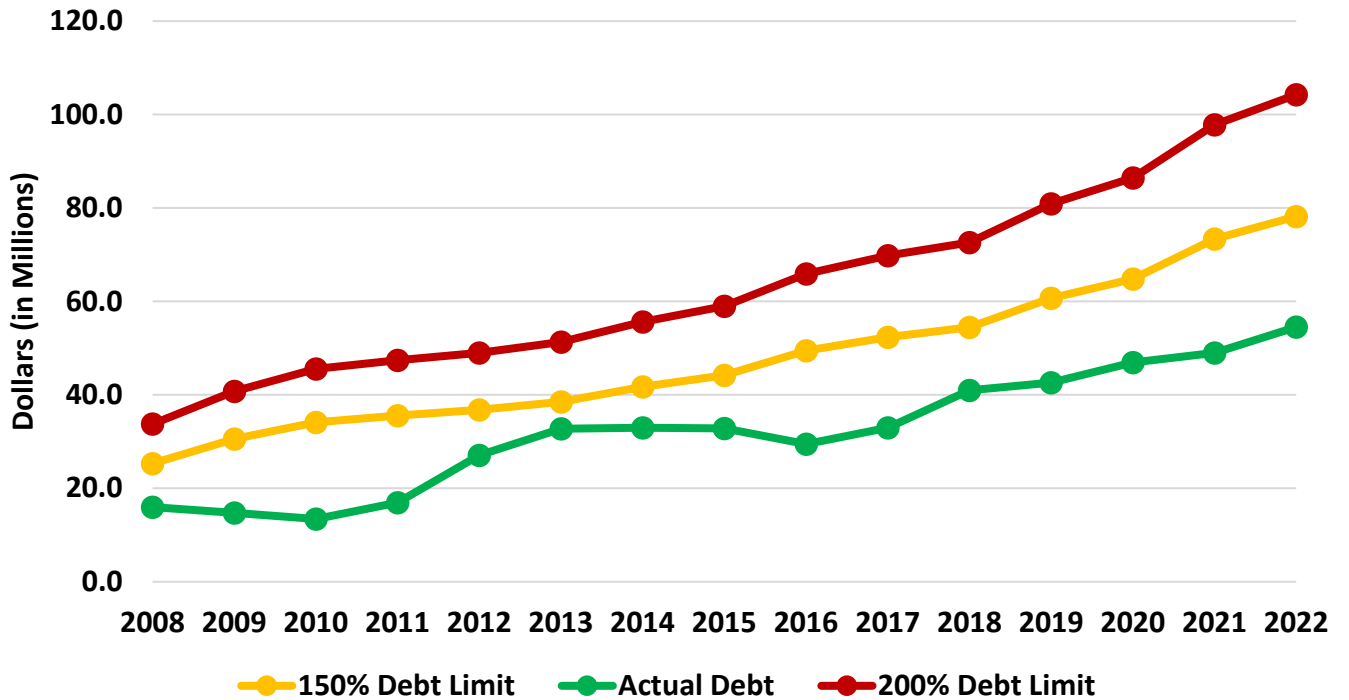
Debentures

Debentures increased by \$5.5 million (11.3%) to \$54.5 million to a debt to revenue percentage of 105%. We issued \$10.0 million in new debentures and paid down \$4.5 million in principle on our outstanding debentures.

	2022	2021
Total debt limits-150% (Board limit)	\$78,191	\$73,357
Total debt	54,516	48,972
Amount of total debt remaining	\$23,675	\$24,385
Debt Servicing Limit	\$18,245	\$17,117
Debt Servicing	6,678	5,744
Amount total debt servicing remaining	\$11,567	\$11,373



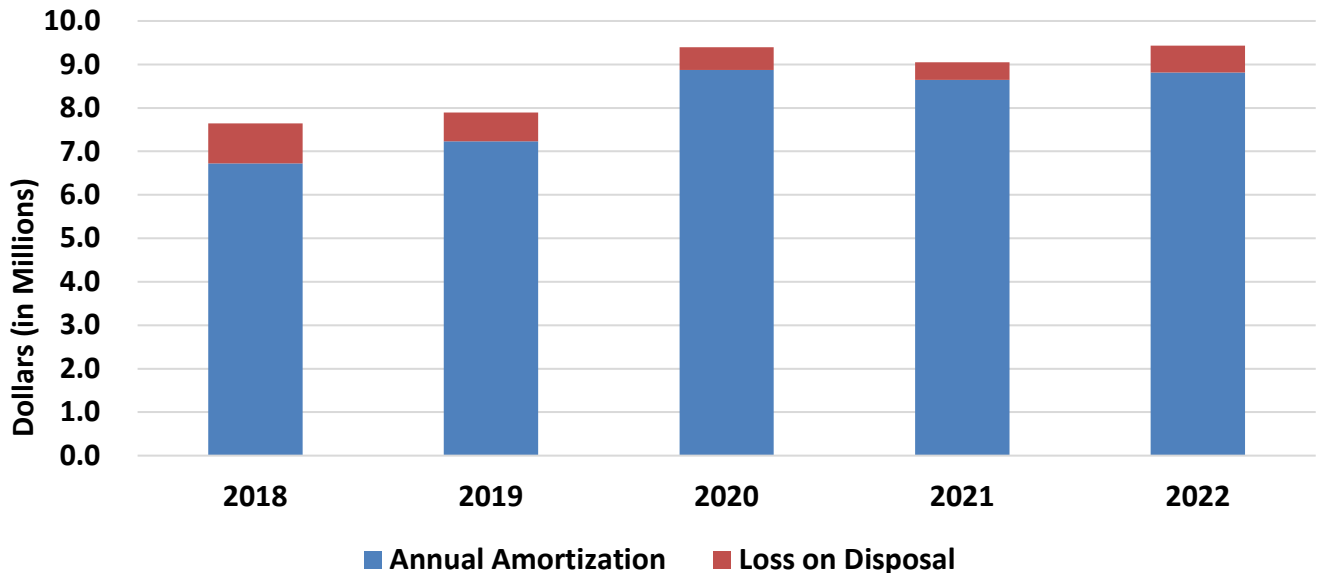
Debenture Limits



Amortization

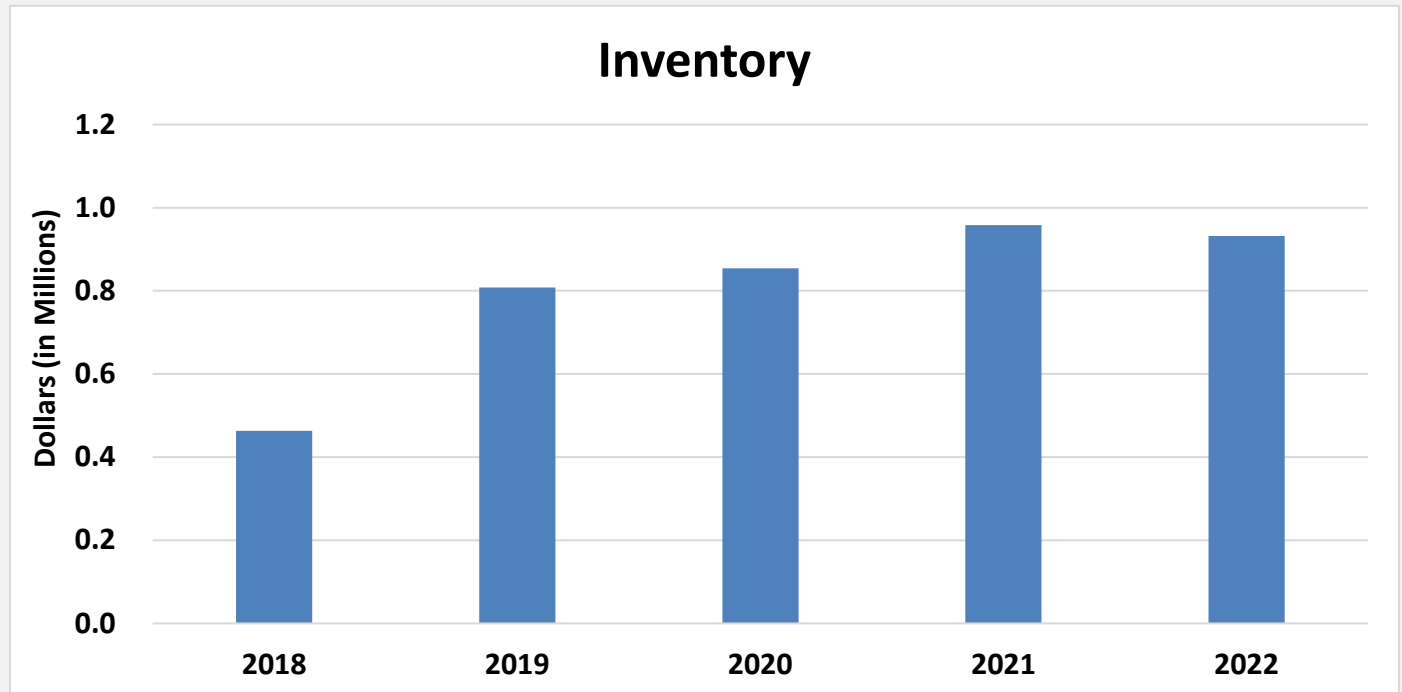
The amortization was \$9.4 million which was on budget. This included \$0.6 million on loss on disposal of assets. Over the next few years we are anticipating the amortization to increase as we continue to replace important transmission structure and the with the major plant upgrade slated to be completed in 2025.

Amortization



Inventory

Inventory levels historically have stayed pretty consistent over the years. We continue to improve our asset management program by identifying critical assets. This improve has caused inventory levels to increase. There is also a trend in increased delivery times that has caused pressure of maintaining higher levels of inventory. We will continue to monitor parts and equipment availability to determine if inventory levels need to be adjusted.

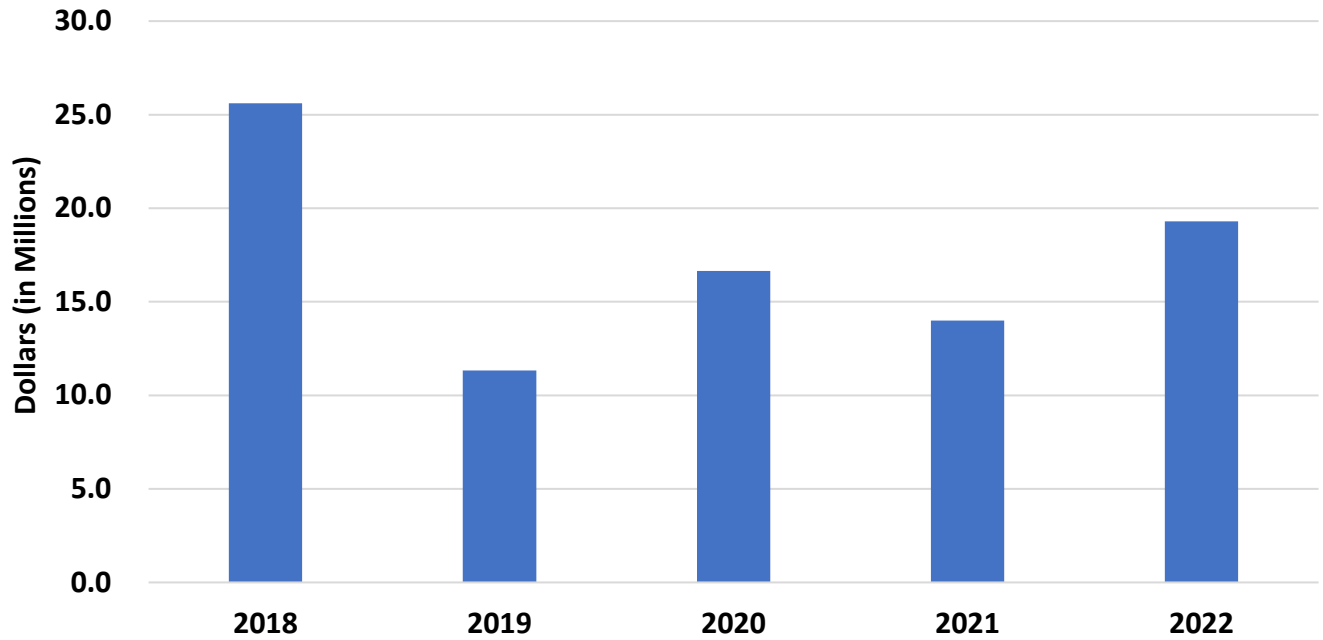


Capital Program

Capital spending in 2022 totaled \$19.3 million which was \$9.1 million under budget.



Capital Spending



<i>Capital Projects (000's)</i>	2022 Actual	2022 Budget	Project To Date	Total Project Estimates
<i>Unplanned Line Replacement</i>	5,285	3,000		
<i>St Albert Regional Trunk Replacement</i>	5,697	3,100	58,577	95,000
<i>Parkland Sewer Transmission System Replacement/ Upgrade</i>	1,291	8,000	1,458	28,200
<i>South-East Regional Trunk System North Twinning</i>	191	3,300	191	10,300
<i>Spruce Grove Wet Weather Storage/ Diversion Gate</i>	2,845	4,900	2,885	12,070
<i>Fort Sask. Generator System Upgrade</i>	153	210	190	1,750
<i>St. Albert Pump Station Pumping/ Electrical Upgrade</i>	1,276	1,500	1,693	2,450
<i>Parkland Pump Station HVAC Upgrades</i>	602	1,510	753	1,700
<i>Waste Gas Burner System Upgrade</i>	262	100	4,235	5,100
<i>Alum System Upgrade</i>	254	800	254	800
<i>CMMS Replacement</i>	105	250	105	300
<i>Clarifier Gate Replacement</i>	-	600	-	600
<i>Wastewater Reuse Upgrade- Train 4</i>	295	200	295	28,400
<i>5KV Main Breaker and Tie Breaker Replacement</i>	87	360	87	250
<i>Aeration Blower Upgrades</i>	287	-	2,658	3,340
<i>Minor Capital</i>	669	570		
Total Capital Requirements	19,299	28,400	72,381	190,260



**Alberta Capital Region Wastewater
Commission**

AUDIT RESULTS

December 31, 2022



Ernst & Young LLP
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Edmonton, AB T5H 0E7

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Fax: +1 780 428 8977
ey.com

March 7, 2023

**The Board of Directors
Alberta Capital Region Wastewater Commission**

Dear Members of the Board of Directors (“those charged with governance”),

We are pleased to provide the results of our audit of the financial statements of the Alberta Capital Region Wastewater Commission (the “Commission”). This letter also includes the status of our audit, which we anticipate will be completed on or about March 17, 2023.

Our audit was designed to express an opinion on the 2022 financial statements. We continue to receive the full support and assistance of the Commission’s personnel in conducting our audit. Open and candid dialogue with you is a critical step in the audit process, and in the overall corporate governance process and we appreciate this opportunity to share the insights from our audit with you.

At Ernst & Young, we continually evaluate the quality of our professionals’ work in order to deliver remarkable client service. We strive to provide you with audit services of the highest quality that will meet or exceed your expectations, and we encourage you to participate in our Assessment of Service Quality (ASQ) process to provide your input on our performance. The ASQ process is a critical tool that enables us to monitor and improve the quality of our audit services to the Commission.

This report is intended solely for the information and use of management and those charged with governance. It is not intended to be, and should not be, used by anyone other than these specified parties.

We look forward to meeting with you to discuss the contents of this letter and answer any questions you may have about these or any other audit-related matters.

Yours very truly,

Chartered Professional Accountants

Robert M. Jolley, CPA, CA *

** Services provided through Robert Jolley Professional Corporation*

Agenda/Table of Contents

- ▶ 2022 Ernst & Young services
- ▶ Critical policies, estimates and areas of audit emphasis
- ▶ Fraud considerations and the risk of management override
- ▶ Corrected and uncorrected misstatements
- ▶ Summary of significant disclosure deficiencies
- ▶ Fair and transparent fees
- ▶ Changes from planning
- ▶ Appendix A: Required communications
- ▶ Appendix B: Draft letter of representations

2022 Ernst & Young services

	Services and deliverables	Status update
Audit and audit-related services	<ul style="list-style-type: none"> ▶ Express opinions on: <ul style="list-style-type: none"> ▪ The financial statements of the Commission for the year ended December 31, 2022, prepared in accordance with Canadian public sector accounting standards (“PSAS”) ▪ The Commission’s financial information return for the year ended December 31, 2022 ▪ The agreed upon procedures in respect of annual contributions to the Alberta Pensions Services Corporation (“APS”) related to the Local Authorities Pension Plan (“LAPP”) ▶ Issue a written communication to: <ul style="list-style-type: none"> – Management and those charged with governance describing significant deficiencies in internal control identified during our audit, should any be noted – Management of other deficiencies in internal control identified during our audit that in our professional judgment are of sufficient importance to merit management’s attention, should any be noted 	<ul style="list-style-type: none"> ▶ Audit procedures to be completed: <ul style="list-style-type: none"> ▪ Obtain a letter of representations from management ▪ Complete subsequent events review procedures ▪ Perform standard fraud and subsequent events inquires with those charged with governance ▶ We will complete the agreed upon LAPP procedures and submit the results to APS before the June 30, 2023 deadline.

Critical policies, estimates and areas of audit emphasis

Area of emphasis / critical accounting policy	Ernst & Young comments on quality and application of accounting policy, significant estimates, financial statement disclosures and related matters
<p>Tangible capital assets</p> <p>Tangible capital assets are recorded at cost and amortized on a straight-line basis over their estimated useful lives. Gains or losses incurred on the disposition or write-off of a capital asset are recorded when the asset is sold or when the end of an asset's useful life has been reached.</p>	<ul style="list-style-type: none"> ▶ During the audit we tested the additions and disposals of tangible capital assets to supporting documentation and tested the reasonability of amortization recorded during the year. ▶ Based on the testing completed, the tangible capital assets are correctly reflected in the financial statements.
<p>Big Lake overflow</p> <p>On December 24, 2022, the Commission discovered a sanitary sewer overflow from a manhole situated near the south shore of Big Lake.</p> <p>The event was promptly reported to Alberta Environment and Protected Areas ("AEPA"). It was determined that the sanitary sewer overflow was caused by the mechanical failure of a valve located in an underground vault. Between December 24 and 28, a series of emergency containment and control actions were introduced, and all wastewater flows were diverted from the failed valve.</p>	<ul style="list-style-type: none"> ▶ The Commission incurred approximately \$400K of costs in 2022 to fix the valve and bypass the flows. The remediation plan was finalized in early 2023 and the Commission expects to incur an additional \$115K in costs related to remediation and testing. As the events given rise to these costs occurred in 2022, they have been recorded in the financial statements. ▶ Based on the information available we concur with managements accounting treatment.

Area of emphasis / critical accounting policy	Ernst & Young comments on quality and application of accounting policy, significant estimates, financial statement disclosures and related matters
<p>START blockage</p> <p>In 2021, a major blockage occurred that caused a bypass into the North Saskatchewan River. The incident is being investigated by Environment Canada and Alberta Environment and the investigation is ongoing. As a result of the blockage a total of \$2.4M in costs were incurred related to the following:</p> <ul style="list-style-type: none"> ▶ \$1.055M to bypass flows ▶ \$1.284M to install a new transmission line ▶ \$112K of clean up costs subsequent to the line being replaced 	<ul style="list-style-type: none"> ▶ The \$1.055M in costs to bypass the flows were incurred by a contractor and the Commission has not paid the invoice or recorded a liability. The Commission is currently awaiting Environment Canada’s assessment and working with their insurance provider and believe that the amount will be paid either through their insurance or the insurance of the contractor. ▶ The \$1.284M incurred to install a new line was capitalized in 2021 and recorded in tangible capital assets and the old line has been disposed of. ▶ The \$112K in clean up costs have been recorded as a receivable as management believes that the amount will be paid either through their insurance or the insurance of the contractor. ▶ Environment Canada is currently investigating the incident to determine fault. If the Commission is found to be at fault they could incur a fine of \$1M. As the outcome can not be determined at this time management has not recognized a liability. ▶ Based on discussions with management and the information currently available we concur with managements current accounting treatment of the costs related to the START blockage.

Area of emphasis / critical accounting policy	Ernst & Young comments on quality and application of accounting policy, significant estimates, financial statement disclosures and related matters
<p>Sherritt International (“Sherritt”)</p> <p>In the prior year, the Commission was made aware of a discrepancy that occurred with the meters measuring the flows of wastewater from Sherritt in 2018/2019. As a result, Sherritt has claimed they were charged, approximately, an additional \$1M.</p>	<ul style="list-style-type: none"> ▶ In early 2022, the Commission worked with the City of Fort Saskatchewan and their specialists to determine the value of flows reported in error as a result of the faulty meters. Since providing initial information, the Commission has not heard from Sherritt. As the likelihood and amounts of any funds that maybe be repaid in the future are not estimable at this time, management has not recognized a liability as at year end. ▶ Based on the information available and the uncertainty of the outcome we concur with managements accounting treatment.
<p>Expenses, and cut-off of year-end transactions</p> <p>In accordance with PSAS, expenses must be recorded in the period in which they are incurred, not in the period in which cash is paid.</p>	<ul style="list-style-type: none"> ▶ The Commission’s policies related to the recording of expenses are appropriate under PSAS. Policies are unchanged from those applied in the prior year. ▶ Based on our testing of expenses and transaction activity subsequent to the year end, no cut-off differences were identified.

Fraud considerations and the risk of management override

We are responsible for planning and performing our audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or by fraud (CAS 240, *The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements*.)

Our audit procedures encompassed the requirements of CAS 240: brainstorming, gathering information to facilitate the identification of and response to fraud risks and performing certain procedures to address the risk of management override, including examining journal entries, reviewing accounting estimates and evaluating the business rationale of significant unusual transactions.

Although EY has not identified a specific fraud risk in the current year, we have examined journal entries, reviewed accounting estimates for management bias and evaluated the business rationale of significant unusual transactions as required by our professional standards. Based on the procedures performed there are no items that merit the attention of those charged with governance.

Corrected and uncorrected misstatements

During the course of our audit, we accumulate differences between the amount, classification, presentation and disclosure of a financial statement item recorded or reported by the Commission and the amount, classification or presentation and disclosure that we believe is required to be recorded or reported under generally accepted accounting principles. We have not identified any uncorrected misstatements through the date of this report.

There were no significant corrected audit adjustments related to the 2022 audit.

Summary of significant disclosure deficiencies

During the course of our audit, we identify those significant disclosures required in the 2022 financial statements of the Commission, that we believe were not adequately reflected. There were no such disclosure differences noted during the completion of our audit.

Fair and transparent fees

The total fees for the 2022 financial statement audit, financial information return and the agreed upon procedures in respect of annual contributions to the LAPP were \$26,000.

Changes from planning

As part of our January 10, 2023 Audit Plan, we communicated to you the timing of the audit and a summary of our audit approach. The 2022 audit is progressing as planned with the exception of an increase in materiality from \$1,450,000 to \$1,550,000 as a result of actual revenue being higher than forecasted. Materiality represents 3% of revenue for the year ended December 31, 2022.

APPENDIX A

REQUIRED COMMUNICATIONS

Area	Comments
<p>Auditor’s responsibilities under Canadian GAAS, including discussion of the type of opinion we are issuing</p> <p>The financial statements are the responsibility of management. Our audit was designed in accordance with Canadian auditing standards to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement.</p>	<p>Upon completion of our remaining audit procedures, we currently expect to issue an unqualified opinion on the Commission’s financial statements as of and for the year ended December 31, 2022.</p>
<p>Overview of planned scope and timing</p> <p>We discuss with those charged with governance an overview of the planned audit scope and timing. These discussions are intended to assist those charged with governance in better understanding the consequences of the auditor’s work for their oversight activities, discussing with the auditors issues of risk and materiality, and identifying any areas for which they may request the auditor to undertake additional procedures.</p>	<p>Communicated with the audit plan dated January 10, 2023.</p> <p>See “Changes from planning” section above.</p>
<p>Our responsibility, any procedures performed or expected to be performed and the results relating to other information in documents containing audited financial statements</p> <p>Our responsibility to read the other information in documents containing audited financial statements and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.</p>	<p>We will read the Commission’s Annual Report when it becomes available and if, based on the work we will perform on this other information, we identify any material misstatements in this other information, we will report this fact to you.</p>

Area	Comments
<p>Major issues discussed with management in connection with initial appointment or recurring retention</p> <p>We discuss with those charged with governance any major professional issues that were discussed (orally or in writing) with management in connection with our initial appointment or recurring retention as the auditor, including, among other matters, any discussions regarding the application of accounting principles and auditing standards, the scope of the audit, financial statement disclosures and the wording of the auditor’s report. We communicate those major professional issues we discussed with management, prior to our being hired as the auditors, and during the client’s two most recently completed fiscal years and any subsequent interim period.</p>	<p>None.</p>
<p>Significant audit adjustments, including significant disclosure differences that merit the attention of those charged with governance</p> <p>We provide those charged with governance with information about adjustments and disclosure differences that merit the attention of those charged with governance arising from the audit (whether corrected or not) that could in our judgment, either individually or in the aggregate, have a significant effect on the Commission’s financial statements.</p>	<p>See “Corrected and uncorrected misstatements” and “Summary of significant disclosure deficiencies” sections above.</p>
<p>Uncorrected misstatements, including significant disclosure differences that merit the attention of those charged with governance, considered by management to be immaterial</p> <p>We inform those charged with governance about uncorrected misstatements accumulated by us (i.e., adjustments either identified by us or brought to our attention by management) during the current audit and pertaining to the latest period presented that were determined by management to be immaterial, both</p>	<p>See “Corrected and uncorrected misstatements” and “Summary of significant disclosure deficiencies” sections above.</p>

Area	Comments
individually and in the aggregate, to the financial statements as a whole.	
<p>Critical accounting policies and practices</p> <p>We communicate all critical accounting policies and practices used by the Commission in preparing the financial statements and our assessment of the disclosure of such policies.</p>	<p>We have provided our views in the section titled, “Critical policies, estimates and areas of audit emphasis.”</p>
<p>Our judgments about the quality of the Commission’s accounting principles</p> <p>We discuss our judgments about the quality, not just the acceptability, of the accounting policies as applied in the Commission’s financial reporting, including the consistency of the accounting policies and their application and the clarity and completeness of the financial statements and related disclosures.</p>	<p>We have provided our views in the section titled, “Critical policies, estimates and areas of audit emphasis.”</p>
<p>The adoption of, or a change in, an accounting principle</p> <p>We determine that those charged with governance are informed about the initial selection of, and any changes in, significant accounting principles or accounting policies or their application when the accounting principle or its application, including alternative methods of applying the accounting principle, has a material effect on the financial statements.</p>	<p>None.</p>
<p>Methods of accounting for significant unusual transactions and for controversial or emerging areas</p> <p>We determine that those charged with governance are informed about the methods used to account for significant unusual transactions and the effects of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus.</p>	<p>We are not aware of any significant unusual transactions recorded by the Commission or of any significant accounting policies used by the Commission related to controversial or emerging areas for which there is a lack of authoritative guidance.</p>

Area	Comments
<p>Sensitive accounting estimates</p> <p>The preparation of the financial statements requires the use of accounting estimates. Certain estimates are particularly sensitive due to their significance to the financial statements and the possibility that future events may differ significantly from management's current judgments.</p> <p>We determine that those charged with governance are informed about management's process for formulating particularly sensitive accounting estimates and about the basis for our conclusions regarding the reasonableness of those estimates.</p>	<p>We have provided our views in the section titled, "Critical policies, estimates and areas of audit emphasis."</p>
<p>Material alternative accounting treatments discussed with management</p> <p>We discuss with those charged with governance all alternative accounting treatments within GAAP for policies and practices related to material items (including recognition, measurement, presentation and disclosure alternatives) that have been discussed with management during the current audit period including:</p> <ul style="list-style-type: none"> ▶ Ramifications of the use of such alternative disclosures and treatments, including the reasons why the alternative was selected and, if management did not select our preferred alternative, the reasons why it was not selected. ▶ The treatment preferred by us. 	<p>During fiscal 2022, we did not discuss any material alternative accounting treatments with management.</p>
<p>Disagreements with management</p> <p>We discuss with those charged with governance any disagreements with management, whether or not satisfactorily resolved, about matters that individually or in the aggregate could be significant to the Commission's financial statements or the auditor's reports.</p>	<p>None.</p>

Area	Comments
<p>Management’s consultations with other accountants</p> <p>When we are aware that management has consulted with other accountants about auditing, accounting, or reporting matters, we discuss with those charged with governance our views about significant matters that were the subject of such consultation.</p>	<p>None of which we are aware.</p>
<p>Serious difficulties encountered in dealing with management when performing the audit</p> <p>We inform those charged with governance of any serious difficulties encountered in dealing with management related to the performance of the audit.</p>	<p>None.</p>
<p>Fraud and non-compliance with laws and regulations (illegal acts)</p> <p>We communicate to those charged with governance fraud and illegal acts involving senior management and fraud and illegal acts (whether caused by senior management or other employees) that cause a material misstatement of the financial statements.</p> <p>We also communicate other matters of non-compliance with laws and regulations that come to our attention during the audit, unless they are clearly inconsequential.</p>	<p>We are not aware of any matters that require communication. Refer to the “Fraud considerations and risk of management override” section for more information about our procedures related to the risks of material misstatement due to fraud.</p>
<p>Other material written communications with, and representations sought from management</p> <p>We determine that those charged with governance have received copies of all material written communications with management, including representations requested from them related to uncorrected errors.</p>	<p>The detailed terms of our engagements are outlined in our audit engagement letters, which were signed by Mr. Dave Ansderson and are available on request.</p> <p>Our letter of representation is included in Appendix B.</p>

Area	Comments
<p>Independence matters</p> <p>We communicate, at least annually, the following to those charged with governance:</p> <ul style="list-style-type: none"> ▶ Describe, in writing, all relationships between Ernst & Young and our associated entities and the Commission and its affiliates or persons in financial reporting oversight roles at the Commission that may reasonably be thought to bear on our independence; and <p>Discuss with those charged with governance the potential effects of those relationships on independence.</p>	<p>We continue to be independent as required by Canadian professional standards.</p>
<p>Other findings or issues regarding the oversight of the financial reporting process</p> <p>We communicate other findings or issues, if any, arising from the audit that are, in our professional judgment, significant and relevant to those charged with governance regarding their oversight of the financial reporting process.</p>	<p>There are no other findings or issues arising from the audit that are, in our judgment, significant and relevant to those charged with governance regarding the oversight of the financial reporting process.</p>
<p>Subsequent events</p> <p>We inquire of management and, where appropriate, those charged with governance as to whether any subsequent events have occurred which might affect the financial statements.</p>	<p>None.</p>
<p>Related party transactions</p> <p>The auditor shall communicate with those charged with governance significant matters arising during the audit in connection with the Commission's related parties.</p>	<p>None of which we are aware.</p>

APPENDIX B

DRAFT LETTER OF REPRESENTATIONS

March 17, 2023

Ernst & Young LLP

In connection with your audit of the financial statements of Alberta Capital Region Wastewater Commission (the “Commission”) as of December 31, 2022 and for the year then ended, we recognize that obtaining representations from us concerning the information contained in this letter is a significant procedure in enabling you to form an opinion whether the financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows of the Commission in accordance with Canadian public sector accounting standards.

We understand that the purpose of your audit of our financial statements is to express an opinion thereon and your audit was conducted in accordance with Canadian generally accepted auditing standards, which involves an examination of the accounting system, internal control and related data to the extent you considered necessary in the circumstances.

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of financial statement information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

Accordingly, we make the following representations, as of March 17, 2023, which are true to the best of our knowledge and belief:

Financial statements and financial records

1. We have fulfilled our responsibilities, as set out in the terms of the audit engagement agreement dated December 22, 2022, for the preparation and fair presentation of the financial statements in accordance with Canadian public sector accounting standards.
2. We acknowledge our responsibility for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
3. We acknowledge that, as members of management of the Commission, we are responsible for the fair presentation of the financial statements. We believe the financial statements referred to

above present fairly, in all material respects, the financial position, results of operations and cash flows of the Commission in accordance with Canadian public sector accounting standards.

4. The significant accounting policies adopted in the preparation of the financial statements are fully and fairly described in the financial statements.
5. As members of management of the Commission, we believe that the Commission has a system of internal controls adequate to permit the preparation of accurate financial statements in accordance with Canadian public sector accounting standards. We have disclosed to you any significant changes in our processes, controls, policies, and procedures that we have made to address the effects of the COVID-19 pandemic on our system of internal controls.
6. We are not aware of any significant deficiencies in the design or operation of internal control over financial reporting. There have been no significant changes in internal control since December 31, 2022.
7. From March 18, 2022 through the date of this letter we have disclosed to you, to the extent that we are aware, any (1) unauthorized access to our information technology systems that either occurred or is reasonably likely to have occurred, including of reports submitted to us by third parties (including regulatory agencies, law enforcement agencies and security consultants), to the extent that such unauthorized access to our information technology systems is reasonably likely to have a material effect on the financial statements, in each case or in the aggregate, and (2) ransomware attacks when we paid or are contemplating paying a ransom, regardless of the amount.

Other information

1. Other information comprises financial or non-financial information (other than financial statements and the auditor's report thereon) included in an entity's annual report, which is defined as a document, or a combination of documents, with the following characteristics:
 - (a) contains or accompanies the financial statements and our auditor's report thereon,
 - (b) is typically prepared on an annual basis by management or those charged with governance in accordance with law, regulation or custom, and
 - (c) the purpose of which is to provide owners (or similar stakeholders) with information on the entity's operations and the entity's financial results and financial position as set out in the financial statements.

We are responsible for the other information and have informed you of all of the documents that we expect to issue that may comprise other information.

2. We intend to prepare and issue the Annual Report and will provide you with the final version of the other information when available. We will provide you with the other information prior to the issuance of the documents, so that you may complete your required procedures.

Non-compliance with laws and regulations, including fraud

1. We acknowledge that we are responsible to determine that the Commission's business activities are conducted in accordance with laws and regulations and that we are responsible to identify and address any non-compliance with applicable laws and regulations, including fraud.
2. We acknowledge our responsibility for the design, implementation and maintenance of programs and internal control to prevent and detect fraud and error.
3. We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.

We have no knowledge of any identified or suspected non-compliance with laws and regulations, including fraud, that may have affected the Commission (regardless of the source or form and including without limitation, any allegations by "whistleblowers"), including non-compliance matters:

- Involving financial improprieties
- Related to laws and regulations that have a direct effect on the determination of material amounts and disclosures in the Commission's financial statements
- Related to laws and regulations that have an indirect effect on amounts and disclosures in the financial statements, but compliance with which may be fundamental to the operations of the Commission's business, its ability to continue in business, or to avoid material penalties
- Involving management, or employees who have significant roles in internal control, or others
- In relation to any allegations of fraud, suspected fraud or other non-compliance with laws and regulations communicated by employees, former employees, analysts, regulators or others

Uncorrected misstatements

1. There are no uncorrected misstatements (including the effects of correcting or reversing prior period uncorrected misstatements or uncorrected misstatements in disclosures) relating to the current period financial statements.

Independence

1. We are not aware of any business relationship between the Commission and Ernst & Young LLP or any other member firm of the global Ernst & Young organization.

2. We are not aware of any reason that Ernst & Young LLP would not be independent for purposes of the Commission's audit.

Completeness of information

1. We have provided you with:
 - (a) Access to all information of which we are aware that is relevant to the preparation of the financial statements such as records, documentation and other matters
 - (b) Additional information that you have requested from us for the purpose of the audit
 - (c) Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence
2. We have made available to you all minutes of the meetings of members, directors and committees of directors (or summaries of actions of recent meetings for which minutes have not yet been prepared) held through the year to the most recent meeting on January 20, 2023.
3. We also have made available to you all significant contracts, including amendments, and agreements and have communicated to you all significant oral agreements. We have complied with all aspects of contractual agreements that would have a material effect on the financial statements in the event of noncompliance, including all covenants, conditions or other requirements of all outstanding debt.
4. There are no transactions, events or conditions of a material nature, individually or in the aggregate, that have not been properly recorded in the accounting records underlying the financial statements including those related to the COVID-19 pandemic.
5. We confirm the completeness of the information provided regarding the identification of related parties. We have disclosed to you the identity of the Commission's related parties and all related party relationships and transactions of which we are aware, including sales, purchases, loans, transfers of assets, liabilities and services, leasing arrangements, commitments, guarantees, non-monetary transactions and transactions for no consideration for the year, as well as related balances due to or from such parties at the year end. These transactions have been properly measured and disclosed in the financial statements.

Recognition, measurement and disclosure

1. We believe that the appropriateness of the methods, the consistency in application, the accuracy and completeness of data, and the reasonableness of significant assumptions used by us in developing accounting estimates and related disclosures used in the preparation of the financial statements, including those measured at fair value are reasonable and supportable, and include the effects of the COVID-19 pandemic.

2. We have no plans or intentions that may materially affect the carrying value of assets and liabilities reflected in the financial statements.

Risks and measurement uncertainties

1. We have disclosed the assumptions we have made about the future, and all other major sources of estimation uncertainties, including the effects of the COVID-19 pandemic, which have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Ownership of assets

1. The Commission has satisfactory title to all assets appearing in the statement of financial position, and there are no liens or encumbrances on the Commission's assets, nor has any asset been pledged. All assets to which the Commission has satisfactory title appear in the statement of financial position.

Receivables and revenues

1. Receivables represent valid claims against the debtors indicated and do not include amounts for goods shipped or services provided subsequent to the statement of financial position date, goods shipped on consignment, or other types of arrangements not constituting sales. All revenues and the related costs incurred can be measured reliably. For sales of goods, revenues have not been recognized before the Commission has transferred to the buyer the significant risks and rewards of ownership, and the Commission has retained no continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold. For services, revenue has been recognized by reference to the stage of completion of the transaction at the end of the reporting period to the extent that the outcome can be reliably estimated. If the outcome cannot be reliably estimated, revenue has been recognized only to the extent of recoverable expenses incurred. At the time of performance ultimate collection of the receivables is reasonably assured.
2. Adequate provision has been made for losses, costs, and expenses that may be incurred subsequent to the statement of financial position date in respect of sales and services rendered prior to that date and for uncollectible accounts, discounts, returns, and allowances, etc., that may be incurred in the collection of receivables at that date.
3. We have disclosed to you all sales terms (both expressed and implied), including all rights of return or price adjustments and warranty provisions. We have made available to you all significant contracts, communications (either written or oral), and other relevant information pertaining to arrangements with our customers, including distributors and resellers.
4. We have adequately disclosed a description of our major revenue generating products and services, the types of arrangements (including multiple-element arrangements) used to deliver

these products or services, and a description of the revenue recognition policies applicable to these products or services.

Inventories

1. Inventories were priced at the lower of cost and current replacement cost.
2. Inventory quantities were determined by actual count, weight or measurement by competent employees under the supervision of management as at December 21, 2022 and properly adjusted for subsequent receipts and shipments to the year end.
3. Inventory does not include items not paid for and for which no liability has been recorded in the accounts at the year end; goods on consignment from others; or goods invoiced to customers.

Financial instruments

1. We have evaluated if there are indicators of impairment for all financial assets measured at cost or amortized cost, and where there has been a significant adverse change in the expected timing or amount of future cash flows from a financial asset or group of similar financial assets, we have assessed if a reduction in the carrying value is necessary. When an impairment is necessary, the carrying amount of the asset, or group of assets have been reduced to the highest of the cash flows expected to be generated by holding the asset, the amount that could be realized by selling the asset, and the amount the entity expects to realize by exercising any right to collateral held to secure repayment of the asset net of all costs necessary to exercise those rights. The amount of the impairment has been included in the statement of operations and accumulated surplus.

Arrangements with financial institutions

1. Arrangements with financial institutions involving compensating balances or other arrangements involving restrictions on cash balances and line-of-credit or similar arrangements have been properly recorded or disclosed in the financial statements.

Tangible capital assets

1. All charges to capital asset accounts during the year represent actual additions and no expenditures of a capital nature have been charged to expense during the year.
2. All tangible capital assets sold or dismantled during the year have been properly accounted for in the accounts.
3. Appropriate rates have been used to depreciate and amortize these assets over our estimation of their useful lives.
4. No events or changes in circumstances of the tangible capital assets have occurred that indicate the assets no longer have any long-term service potential to the Commission except as noted

below. Our estimates of future service potential are based on reasonable and supportable assumptions regarding the expected use of the assets.

5. We have identified assets that no longer have any long-term service potential to the Commission. The excess of the net carrying amount over the residual values of these assets has been recognized as an expense in the statement of operations and accumulated surplus.

Events of default under debt agreements

1. No events of default have occurred with respect to any of the Commission's debt agreements.

Liabilities and contingencies

1. All liabilities and contingencies, including those associated with guarantees, whether written or oral, have been disclosed to you and are appropriately reflected in the financial statements.
2. We have informed you of all outstanding and possible claims, whether or not they have been discussed with legal counsel.
3. We have recorded and/or disclosed, as appropriate, all liabilities related to litigation and claims, both actual and contingent.
4. All liabilities have been discounted to reflect the time value of money, where such effect is material.
5. We are unaware of any known or probable instances of non-compliance with the requirements of regulatory or governmental authorities, including their financial reporting requirements, and there have been no internal investigations or communications from regulatory agencies or government representatives concerning investigations or allegations of non-compliance.
6. We are unaware of any violations or possible violations of laws or regulations the effects of which should be considered for disclosure in the financial statements or as the basis of recording a contingent loss.
7. We have disclosed to you all liabilities or contingencies arising from environmental matters. These liabilities or contingencies have been recognized, measured and disclosed, as appropriate, in the financial statements.

Oral or written guarantees

1. There are no oral or written guarantees, including guarantees of the debt of others.

Purchase commitments

1. At the year end, the Commission had no commitments that involve a high degree of speculative risk, when the taking of such risks is not inherent in the nature of the business, or commitments to make expenditures that are abnormal in relation to the financial position or usual business operations. (e.g., contracts or purchase agreements above market price; repurchase or other agreements not in the ordinary course of business; material commitments for the purchase of tangible capital assets; purchase commitments for inventory quantities in excess of normal requirements or at prices in excess of the prevailing market prices; losses from fulfillment of, or inability to fulfill, sales commitments, etc.).

Employee future benefits

1. We have disclosed to you all significant pension benefits, other retirement and post-employment benefits promised and have made available to you all significant summary plan descriptions, benefit communications, and all other relevant information, including plan changes, that constitute the plan.

Going concern

1. We have made an assessment of the Commission's ability to continue as a going concern.

Subsequent events

1. Subsequent to December 31, 2022, no events or transactions have occurred or are pending, including events related to the COVID-19 pandemic, that would have a material effect on the financial statements at that date or for the period then ended, or that are of such significance in relation to the Commission's affairs to require mention in a note to the financial statements in order to make them not misleading regarding the financial position, results of operations, or cash flows of the Commission.

Comparative figures

1. In connection with your audit of the comparative financial statements for the year ended December 31, 2021 we represent, to the best of our knowledge and belief that there have been no significant errors or misstatements, or changes in accounting policies that would require a restatement of the amounts from the financial statements for the year ended December 31, 2021 which are shown as comparative amounts in the financial statements for the year ended December 31, 2022. Any differences in the comparative amounts from the amounts in the financial statements for the year ended December 31, 2021 are solely the result of reclassifications for comparative purposes.

Kate Polkovsky, General Manager

Date

Paul Krueger - Corporate Services Manager

Date

Board Report

Date: March 17, 2023

Subject: Administration Reports

Alignment to Priorities in Board's Strategic Plan

- Respecting our Environment
- Responsible Leadership

Recommendation

THAT the Administrative Reports be received for information.

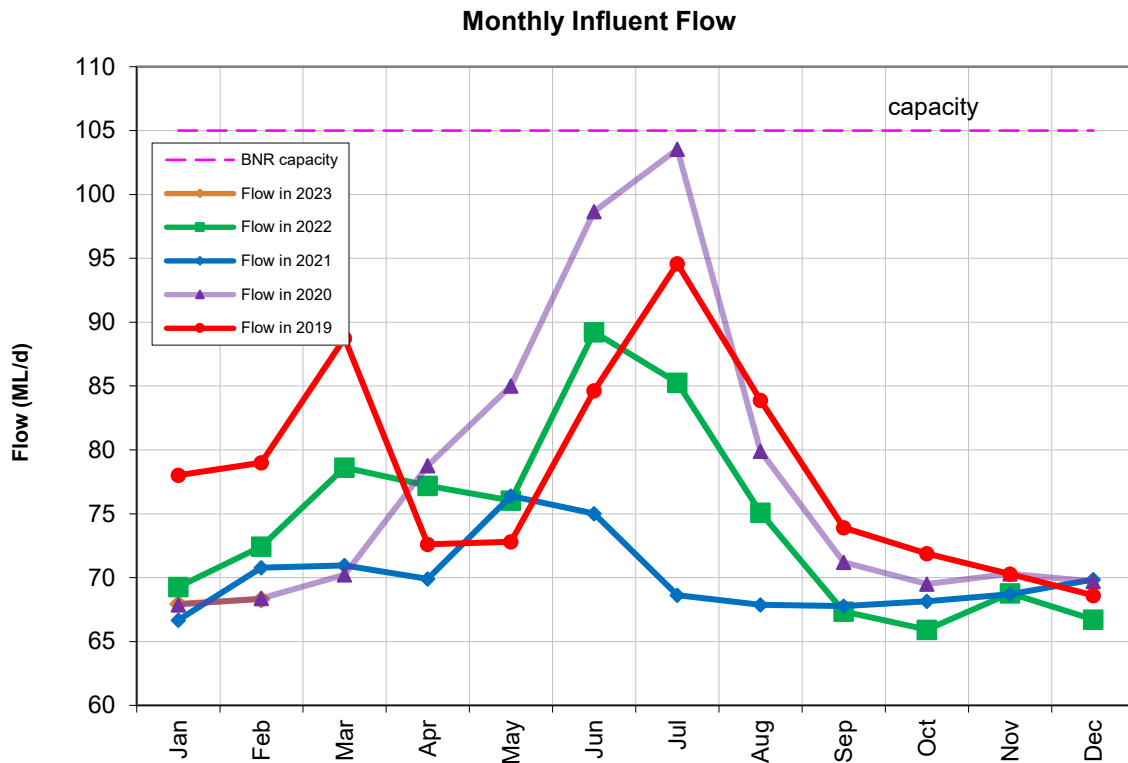
Attached are the following reports:

- Operations Report
- Incidents and Contraventions Report

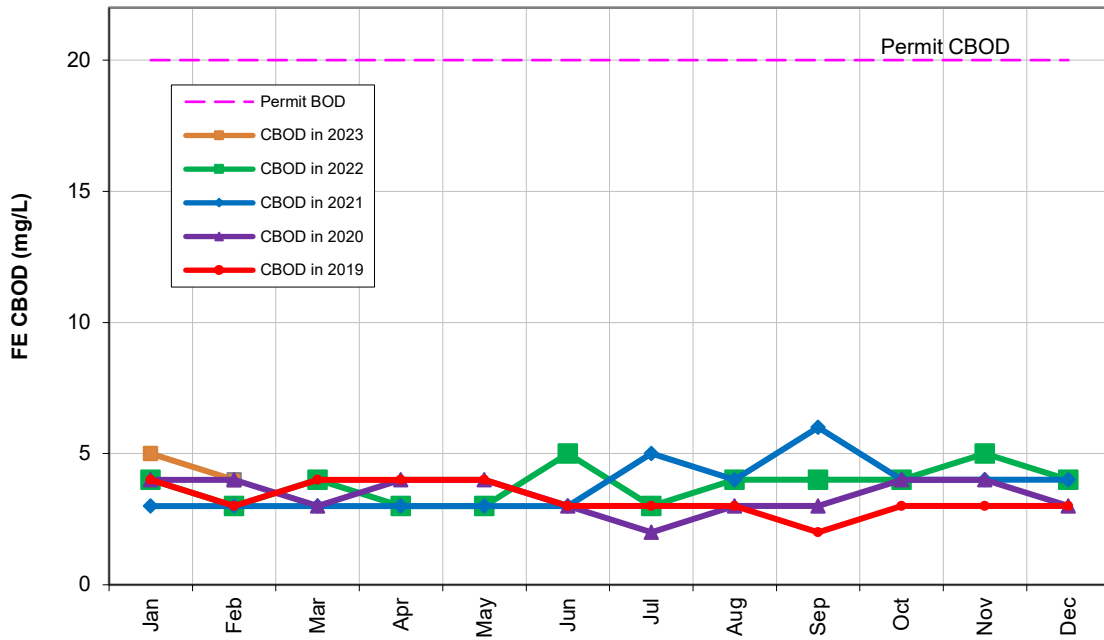
Operations Summary – February 2023

- A sinkhole was discovered on the Outfall line resulting in a significant load of solids to enter the treatment plant resulting in process issues. Repairs to the section of pipe has commenced and will be completed by early March.
- Large amounts of Methanol dosing to the BNR process was required due high influent loading of ammonia and Phosphorus that exceeded the plant loading capacity.
- St. Albert, sewage pump 1 check valve failed causing flow to pass through the valve in reverse to the wetwell. A new valve was installed and tested before placing pump back into service.
- Remediation by steam cleaning and flushing was completed at Big Lake. A Water Body Sampling Plan was developed and submitted to AEP for approval.

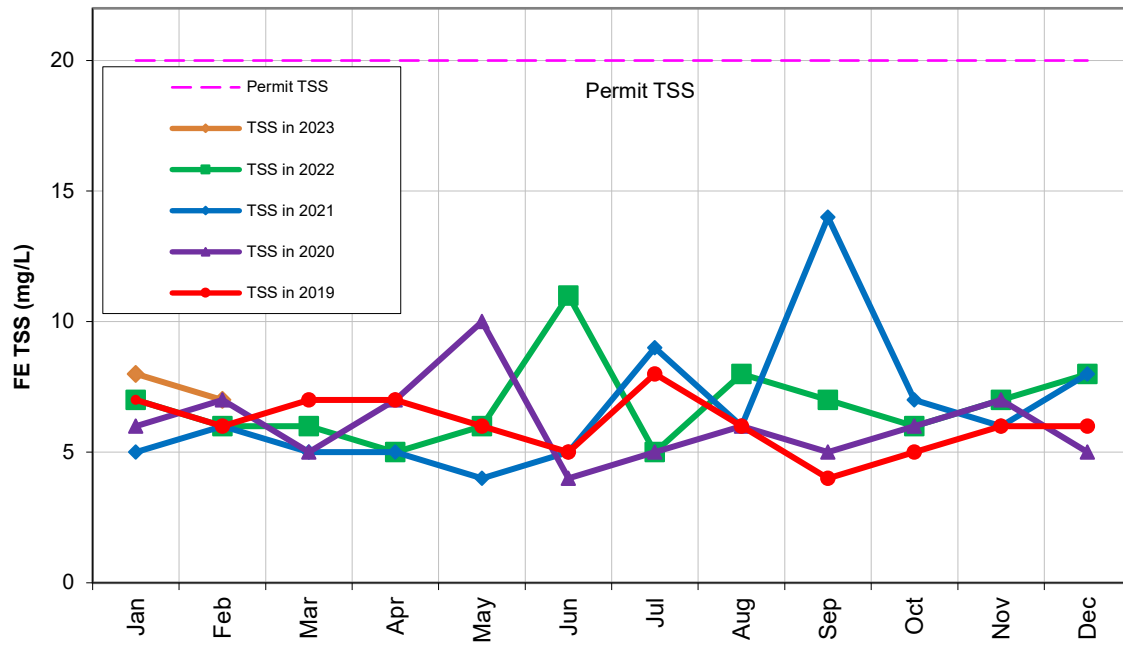
Treatment Targets by Concentrations



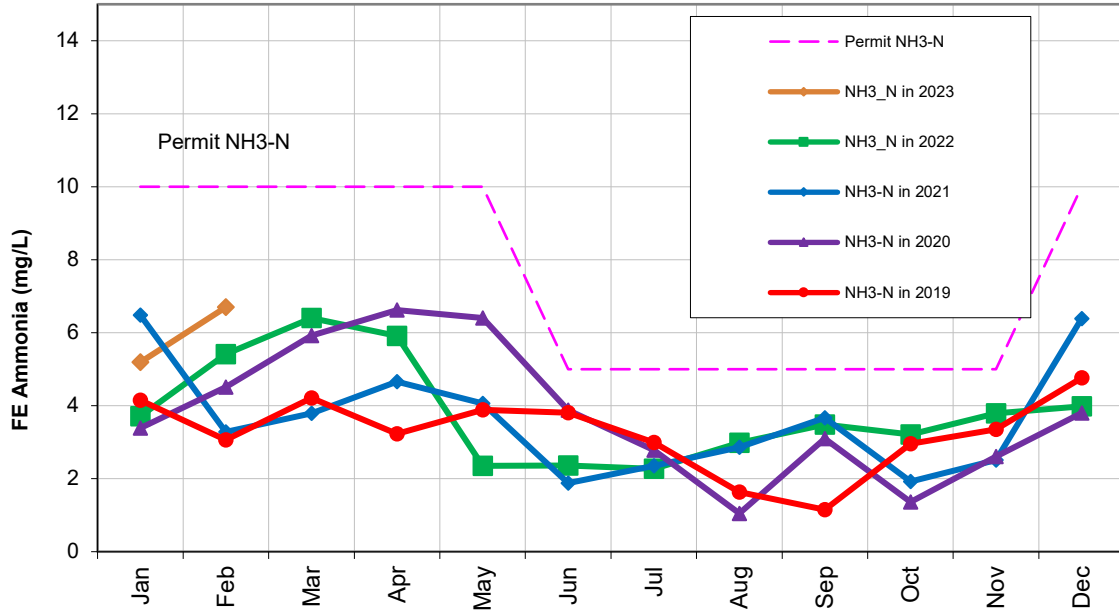
Monthly Effluent Carbonaceous Biological Oxygen Demand



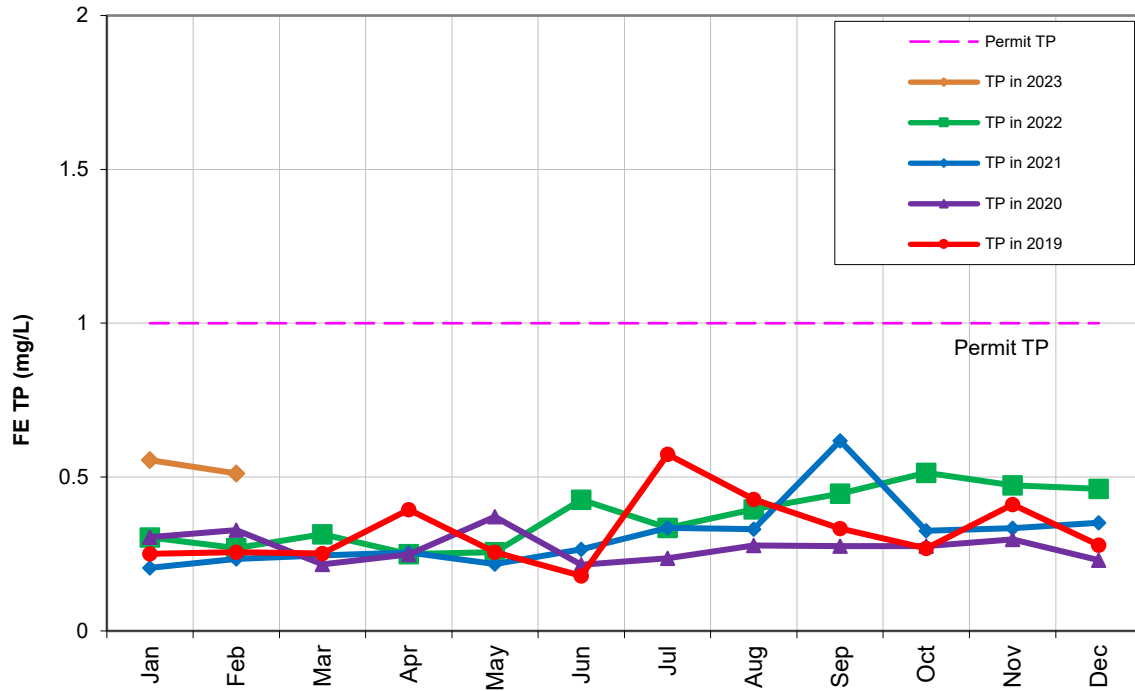
Monthly Effluent Total Suspended Solids



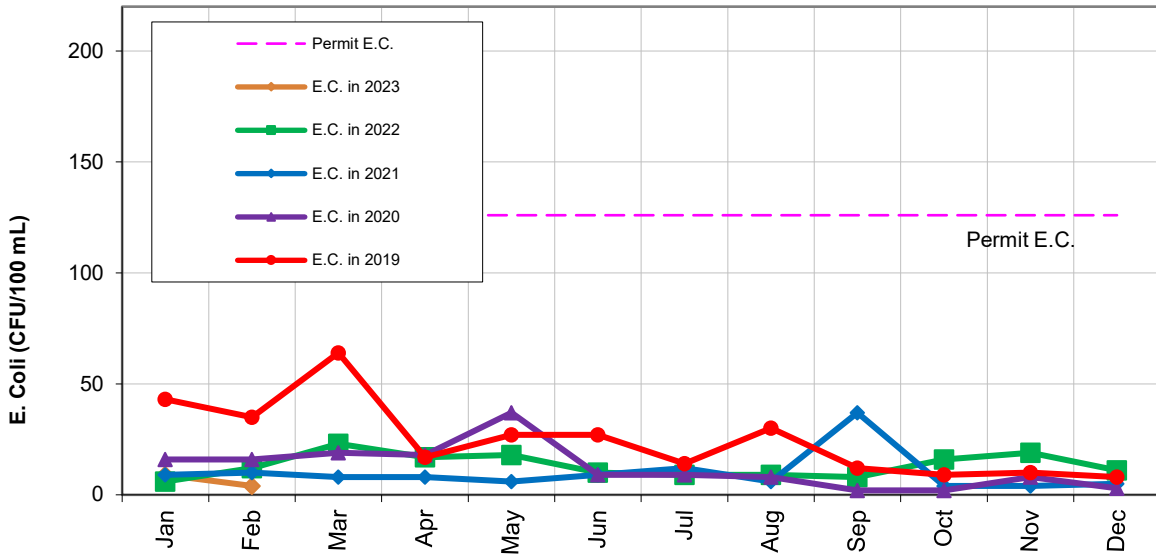
Monthly Effluent Ammonia



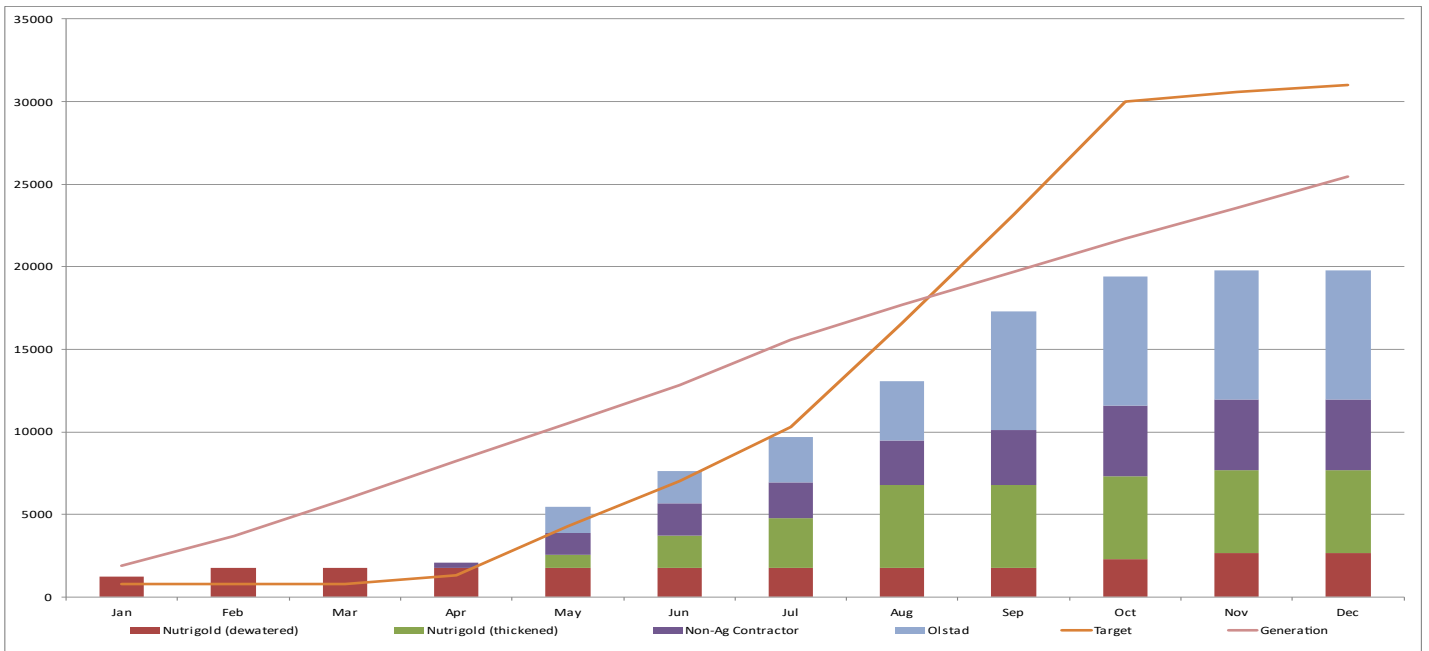
Monthly Effluent Total Phosphorus



Monthly Effluent E. Coli



Biosolids - February 2023



Last update from EPCOR, January 20, 2023

The dewatering facility power supply was not repaired, and the system **did not operate in December**. The high cost of repairs and uncertain future of the facility means it will **not operate in 2023**. Plans are moving forward with an RFP for a **temporary dewatering operation at Clover Bar during the summer months**.

Incidents and Contraventions Report

Date: March 8, 2023

Reporting Period: January 1, 2022, to February 28, 2023

Update on Parkland Vault Untreated Wastewater Release to Big Lake

Incident Classification: Environmental Contravention

(Reported to Alberta Environment)

Date: December 24-28, 2022

Location: 500m east of Parkland Pump Station

Contaminant: Untreated Wastewater

Estimated Volume of Release: 1.56 million liters

Summary of Activities since previous Board meeting (January 20, 2023):

- January 20: Submitted Cleanup and Restoration Plan to Alberta Environment and Protected Areas (EPA).
 - Week of January 23rd: Met with key stakeholders to discuss the matter, including BLESS (Big Lake Environment Support Society) and City of St Albert representatives.
 - January 26: Reported the estimated total volume of release 1,560 cubic meters (10% margin added) to EPA and Environment and Climate Change Canada (ECCC).
 - January 31: Met with ECCC Enforcement Officer to answer several questions surrounding the release to Big Lake.
 - February 2: Supplied requested documents to ECCC (sampling results, force main inspection protocol, and a completed inspection record of the vault)
 - February 3: EPA issued an Environmental Protection Order (EPO) to ACRWC under the Environmental Enhancement and Protection Act (EPEA).
 - February 4: Submitted Water Management Plan to EPA as required by the EPO (approved Feb 5th).
 - February 11: Completed Cleanup and Restoration activities in adherence to the Water Management Plan.
 - March 1: Submitted Water Body Monitoring Plan as required by the EPO.
 - Responded to all inquiries and created a page on ACRWC's website as a dedicated repository for updated information.
 - Mailed out 2800 notices to area residents and businesses directing them to the website, and we received approximately 5 emails/phone calls from residents looking for more information.
 - Root Cause investigation is proceeding at time of reporting. Targeting mid-March for completion with identified root cause(s) and corrective/preventive actions.
-

Incident Classification: Environmental Contravention

Date: January 2, 2023

Location: 500m east of Parkland Pump Station

Contaminant: Untreated Wastewater

Estimated Volume of Release: 1,000 liters

Description of Events:

To facilitate the diversion of wastewater resulting from the December 24-28, 2022, release from the Parkland force main vault, several large diesel pumps were being used to convey wastewater from the Parkland pump station and the vault, through above-ground flexible hoses into a gravity sewer downstream.

At 5:45pm, the Contractor overseeing the pump around conducted a pump re-gen cycle (high RPM to self-clean) on a booster pump which created powerful suction pressure on the flexible, over-ground hoses. It was concluded, the suction pressure collapsed the hose, causing a camlock fitting to open due to not being secured adequately, thus causing the attached hoses to separate. Untreated wastewater was released onto the surrounding ground but did not enter the adjacent water body (Big Lake).

Recovery and future actions:

The release was reported to Alberta Environment and Protected Areas.

The contractor reconnected the camlock and secured it using tape.

The area was already being cleaned-up by vacuum trucks (on-site responding to the December 24-28 spill event), thus the released wastewater from the hose coupling failure was cleaned up immediately and disposed of in the downstream gravity sewer.

All the above-ground hose connections were checked to ensure they were properly secured with locking pins to prevent separation. The pump around ended the next day, January 3rd.

Incident Classification: Near Miss Environmental Contravention

Date: January 25, 2023

Location: City of Edmonton - 700m east of 82nd St. in a field south of 195th Ave.

Description of Events:

ACRWC's Control Room was notified by Canadian Forces personnel that while they were conducting snowmobile exercises, they discovered a sink hole near the Department of National Defence lands. An obvert section of the Outfall pipeline had collapsed, causing the sink hole. Wastewater was contained within the intact invert section of the pipeline thus none was released to ground.

Recovery and future actions:

The site was secured with fencing and the sink hole was covered with plywood. The site was monitored until the repair of a 90m section of the Outfall pipeline was completed. Many sections of the START and Outfall pipelines are in poor condition resulting from hydrogen sulphide corrosion. Continued planned rehabilitation is being systematically executed.

Board Report

Date: March 17, 2023

Subject: Administration and Procedures Bylaw Redline

Recommendation

THAT the Board receive Administration and Procedures Redline Report as information and bring forward a bylaw amendment at the June 2023 Board Meeting.

Alignment to Priorities in Board's Strategic Plan

- Respecting our Environment
 - Release water of the highest possible quality into the North Saskatchewan River
- Responsible Leadership
 - Build Partnerships that Benefit the Commission and the Community
 - Keep Utility Rates Reasonable and Predictable for Member Municipalities

Discussion

Administration has completed a comprehensive review of the Administration and Procedures Bylaw. This bylaw was developed in 2021 as a consolidation of three bylaws and addressed necessary bylaw inclusions that are required by the Municipal Government Act.

In January 2023, the Board voted on changing the title of the General Manager to the Chief Executive Officer, and as a result the bylaw requires updating to reflect the title.

Administration is additionally recommending an inclusion of reclaimed water through treatment to account for the diversified work that is projected to occur in the coming years. This inclusion has been provided and reviewed by Legal Counsel.

Bylaw amendments require a 30-day notice of motion, and as such the Administration is recommending that the bylaw is updated at the June 2023 Board Meeting.

**BEING BYLAWS OF THE BOARD OF DIRECTORS OF THE ALBERTA
CAPITAL REGION WASTEWATER COMMISSION**

WHEREAS the Alberta Capital Region Wastewater Commission was established by the Alberta Capital Region Wastewater Commission Regulation, AR 129/85;

AND WHEREAS the Commission is a continued commission pursuant to s. 602.47 of the *Municipal Government Act*, RSA 2000, c. M-26;

AND WHEREAS the Board of Directors of the Commission wishes to enact Bylaws respecting certain matters set out ins. 602.09(1) of the *Municipal Government Act*, RSA 2000, c. M-26, as more particularly set out herein;

NOW THEREFORE the Board of Directors of the Alberta Capital Regional Wastewater Commission hereby enacts as follows:

1. DEFINITIONS

1.1. In this By-Law:

- (a) "Act" shall mean the *Municipal Government Act* RSA 2000, c. M-26, as amended from time to time;
- (b) "Board" shall mean the Board of Directors of the Alberta Capital Region appointed pursuant to Section 4 of this Bylaw;
- (c) "Chair" shall mean the Chair of the Board;
- (d) "Chief Executive Officer" or "CEO" shall mean the CEO of the Commission appointed by the Board pursuant to Section 5 of this By-Law;
- ~~(d)~~(e) "Commission" shall mean the Alberta Capital Region Wastewater Commission;
- ~~(e)~~(f) "Committee" shall mean any Ad-Hoc Committee established pursuant to Section 6 of this By-Law;
- ~~(f)~~ "General Manager/CEO" shall mean the General Manager/CEO of the Commission appointed by the Board pursuant to Section 5 of this By-Law;
- (g) "Members" shall mean the individuals appointed to the Board by the Municipalities;

- (h) "Municipalities" shall mean the City of Fort Saskatchewan, City of Leduc, City of Spruce Grove, City of St. Albert, Leduc County, Parkland County, Strathcona County, Sturgeon County, City of Beaumont, Town of Bon Accord, Town of Gibbons, Town of Morinville, and Town of Stony Plain subject to any addition or withdrawal of Members pursuant to Section 10.4 of this Bylaw from time to time;
- (i) "Vice-Chair" shall mean the Vice-Chair of the Commission appointed pursuant to Section 4 of this By-Law.

2. APPOINTMENT OF BOARD MEMBERS

- 2.1. The Municipal Council of each of the Municipalities shall by resolution appoint one member of Council to the Board at the Council's organizational meeting.
- 2.2. The term of each Board member's appointment shall be specified by the appointing Municipality but such term shall be no less than one year.
- 2.3. In the event that:
 - (a) A Board member ceases to be a member of Council;
 - (b) A Board member is absent from all regular council meetings held during any period of 8 consecutive weeks starting with the date the first meeting is missed, whether or not the absence is excused is authorized pursuant to ss. 174(2) of the Act or in accordance with a bylaw under s. 144.1 of the Act, or;
 - (c) There are extenuating circumstances which, in the opinion of the majority of the Board, warrant the termination of the appointment of a Board member and appointment of a replacement member by the appointing Municipality

the appointing Municipality may by resolution terminate the appointment of the Board member and appoint a replacement Board Member at the next council meeting following the event referred to in subsection (a)-(c) herein, but in any event no later than the Council's next organizational meeting.

- 2.4. In the event that a Municipality appoints a member of Council other than the Municipality's chief elected official as a member of the Board the appointing municipality's chief elected official shall not be a member of the Board.

3. BOARD MEETINGS AND COMMITTEE MEETINGS

- 3.1. The Board shall meet on and at such date, time and place determined by the Board or as may be directed from time to time by the Chair.

- 3.2. A quorum for meetings of the Board shall be a majority of Members of the Board.
- 3.3. Except as otherwise provided, the business of the Board or of a Committee thereof shall be conducted at meetings of the Members of the Board or the Committee.
- 3.4. Notice of the time and place of any regularly scheduled meeting of the Board or of a Committee need not be given to the Members of the Board or the Committee.
- 3.5. Each Member of the Board or of a Committee shall have one (1) vote and all Members shall vote except in conflict of interest situations of a personal nature.
- 3.6. A vote on a matter shall not be recorded unless specifically directed by the Chair or requested by any Member of the Board.
- 3.7. In the absence of the Chair and the Vice-Chair from a meeting of the Board, those present may elect one of their Members to preside as Chair at the meeting.
- 3.8. The agenda for all meetings of the Board and for meetings of Committees of the Board shall be prepared by the ~~General Manager~~CEO and approved by the Chair or the Chair of the Committee involved as the case may be.
- 3.9. Members of the Board, at the discretion of the Chair of a meeting of the Board, shall be entitled to speak more than once on any matter before the Board and the mover shall be entitled to close the debate on any matter.
- 3.10. With respect to motions before the Board the following shall apply:
 - (a) General - no seconder required;
 - (b) Referral or Deferral - debatable;
 - (c) Tabling - nondebatable;
 - (d) Amending - no seconder required;
 - (e) Separation - can be requested
 - (f) Reconsideration - must be made by voter on prevailing side of original motion at same meeting or by notice of motion;
 - (g) Notices of Motion In writing prior to distribution of Agenda or by proper waiving of Rules of Procedure or by verbal notice at a meeting for the next meeting.

- 3.11. In the event that a question shall arise as to the rules of procedure to be followed at a meeting of the Board or a Committee thereof, and if the procedure to be followed has not been otherwise dealt with in a bylaw, policy or procedure adopted by the Board, Robert Rules of Order shall apply to such question.
- 3.12. Any motion to waive a rule of procedure established by a bylaw of the Board, or, in the absence of a bylaw, by Roberts Rules of Order, shall require an affirmative vote by two-thirds (2/3) of all Board Members in attendance at the meeting.
- 3.13. The Board and any Committee thereof shall cause minutes to be kept of each Board or Committee meeting and minutes of all Committee meetings, once adopted, shall be distributed promptly to all Board Members.

4. CHAIR AND VICE-CHAIR

- 4.1. The Board shall annually elect from amongst its members a Chairman to serve for a term beginning no earlier than November 1 of the year in which the appointment occurs and ending no later than November 30 of the following year
- 4.2. The Board shall annually elect from amongst its Members a Vice-Chair to serve for a term, beginning no earlier than November 1 of the year in which the appointment occurs and ending no later than November 30 of the following year.
- 4.3. In the absence of the Chair, the Vice-Chair shall preside at all regular and special meetings of the Board and shall perform all other duties of the Chair.
- 4.4. The Chair shall be paid such remuneration, travelling and other expenses by the Commission as may be approved from time to time by the Board.
- 4.5. The Chair shall be an ex-officio Member of any committee appointed by the Board from time to time in addition to any other Members appointed to such committee.
- 4.6. Notwithstanding that the term of office of the Chair or the Vice-Chair may have expired, the Chair and the Vice-Chair shall remain in office until such time as a successor has been appointed.

5. GENERAL MANAGER/CEO AND OTHER OFFICIALS

- 5.1. The Board shall appoint a **General Manager/CEO** who shall act as the administrative head of the Commission.
- 5.2. The **General Manager/CEO** shall:

- (a) Ensure that the Commission's programs and policies, as approved by the Board, are implemented;
- (b) Advise and inform the Board on the operation and affairs of the Commission, and;
- (c) Perform the duties and functions and exercise the powers assigned to the ~~General Manager~~CEO by the Board from time to time.

5.3. The Board may appoint such other officials as the Board shall deem necessary from time to time to serve the needs of the Commission and shall define the duties and responsibilities of any such official so appointed.

6. AD HOC COMMITTEES

6.1. The Board may establish Ad Hoc Committees as the Board deems necessary and expedient for the orderly and efficient handling of the affairs of the Commission. The Board will also establish the terms of reference for such Committees, the duties and responsibilities, and the duration of the Committee.

6.2. The Chair of any Committee shall be selected by the Committee.

6.3. The Chair of any Committee shall preside at meetings of the Committee and in the absence of the Committee Chair those present may elect one of their Members to preside as Chair at the meeting.

6.4. Meetings of any Committee shall be held on such day, time and place as may be determined from time to time by the Committee and the Committee Chair shall be at liberty to call a special meeting of the Committee.

6.5. The quorum for Committee meetings shall be the majority of Members that comprise the Committee.

7. SEAL

7.1. The Board shall adopt a seal of the Commission and the seal shall be in the custody of the ~~General Manager~~CEO.

7.2. The seal of the Commission shall only be affixed to any document by the ~~General Manager~~CEO, or their delegate, as authorized by the Board.

8. FINANCIAL REPORTS AND BANKING

8.1. The Board shall cause to be kept proper books of account and records and such books of account and records together with all papers and other documents relating to the Commission shall be kept at the office of the

Commission and shall be open during reasonable business hours to the inspection and examination of every Member of the Board.

- 8.2. The Board shall appoint an auditor or auditors who are permitted to conduct audits in the Province of Alberta.
- 8.3. The Board shall cause minutes to be made and books to be provided for the purpose of recording all Resolutions passed by and of all proceedings of any meeting of the Board and any Committee and shall cause to be recorded the names of all persons present at such meeting.
- 8.4. The Board shall at all times ensure that the requirements of the Act relating to the delivery of reports, financial statements and information to the Members of the Commission are met.
- 8.5. The Board shall from time to time appoint a bank or banks as banker or bankers for the Commission and the Board shall designate those officials and Members of the Board who are authorized to sign cheques on behalf of the Board.

9. HONORARIA AND EXPENSES FOR BOARD MEMBERS

- 9.1. The Board shall from time to time designate the remuneration payable to Members of the Board and provide for the reimbursement of Members of the Board for expenses incurred in the course of their duties as Members of the Board.

10. ADDITION AND REMOVAL OF MUNICIPALITIES

- 10.1. The Commission may agree to the addition of a municipality as a member of the Commission if, in the sole discretion of the Commission, there is sufficient capacity for the supply of services to the municipality and the addition of the municipality as a member is in the best interest of the Commission.
- 10.2. The addition of a municipality as a member of the Commission shall require the approval of two-thirds (2/3) of the Members of the Board and be subject to any terms and conditions established by the Board.
- 10.3. Without limitation to Section 10.2 herein, the Board may in its sole discretion require a municipality to make a payment to the Commission as a condition of the addition of that municipality as a member of the Commission. Any such payment shall be an amount determined by the Board to be reasonable, and may include but shall not be limited to:
 - (a) A one-time membership fee payable to the Commission reflecting a proportionate share of the formation costs of the Commission plus applicable debt servicing costs;

- (b) A proportionate share of the capital costs incurred by the Commission for the provision of services; and
 - (c) Any costs related to the provision of services by the Commission to the new member.
- 10.4. The withdrawal of any one or more of the Municipalities as a member of the Commission shall require the approval of two-thirds (2/3) of the Members of the Board and be subject to any terms and conditions established by the Board.
- 10.5. Without limitation to Section 10.4 herein, the Board may require a Municipality to enter into an agreement with the Commission as a condition of withdrawal of the Municipality as a member of the Commission. The form and terms and conditions of such agreement shall be determined by the Board, and may include but shall not be limited to:
- (i) the transition period for the withdrawal of the Municipality as a member of the Commission;
 - (ii) the withdrawing Municipality's entitlement, if any, to services from the Commission after its withdrawal;
 - (iii) the withdrawing Municipality's responsibility, if any, to pay for a portion of the Commission's debt servicing or capital costs;
 - (iv) the withdrawing Municipality's entitlement, if any, to ownership of any portion of the assets of the Commission used in the delivery of services, and;
 - (v) any other matter determined by the Board to be required to be addressed as a term of condition of the Member's withdrawal.
- 10.6. The Commission shall notify the Minister of Municipal Affairs of any change in the membership of the Commission within 60 days of the change in membership.

11. DISPOSAL OF ASSETS BY THE MEMBERS

- 11.1. The ~~General Manager~~CEO, or their designate, has the authority to dispose of any assets owned by the Commission, including machinery, equipment, computers and office supplies, subject to the following restrictions:
- (a) The disposal of any asset or assets with a fair market value or proposed sale price of more than fifty thousand (\$50,000.00) dollars shall require the approval of two-thirds (2/3) of the Members of the

Board and be subject to any terms and conditions established by the Board;

- (b) The disposal of any land or assets identified as engineering structures shall require the approval of two-thirds (2/3) of the Members of the Board and be subject to any terms and conditions established by the Board.

- 11.2. The ~~General Manager~~CEO may seek the Board's approval to dispose of an asset or assets other than those identified in Subsections 11.1(a) and (b) above if, in the opinion of the ~~General Manager~~CEO, the approval of the Board is necessary or desirable.

12. DISESTABLISHMENT

- 12.1. Approval of (two-thirds) 2/3 of the Members of the Board is required to disestablish the Commission.

- 12.2. In the event that the Board approves the disestablishment of the Commission, the Board must at the time of approval specify further particulars of the procedure for the disestablishment including:

- (a) a timeline for disestablishment of the Commission, and;
- (b) the treatment of assets and liabilities upon disestablishment of the Commission, which shall take into account each Municipality's respective contributions to the Commission in the form of any assets contributed to the Commission and historical consumption by the Municipality and include a process for the collection and disposition of any property and assets owned by the Commission and the discharge, assignment or transfer of the Commission's obligations.

- 12.3. The Commission shall, as of the date of the Board's decision to approve disestablishment of the Commission, cease to provide services or begin the process of ceasing to provide services except to the extent that the Commission is legally required to do so or as required for the beneficial winding-up of the business or affairs of the Commission.

13. PROVISION OF COMMISSION'S SERVICES

- 13.1 The Commission is authorized to supply sewage transmission and treatment services to its Members and to any additional persons to whom the Board decides to supply services to from time to time (the "Wastewater Services")

- 13.2 Without limitation to Section 13.1 herein, the Commission may in its discretion supply reclaimed water generated by the provision of the Treatment Services to any person to whom the Board decides to supply such reclaimed water to from time to time. The rates and applicable terms and conditions with respect to the supply of effluent water referred to herein shall be determined by the Board.

~~13.14.~~ AMENDMENTS

~~13.1.14.1.~~ This Bylaw may be amended from time to time upon thirty (30) days' notice of motion and approval of two-thirds (2/3) of the Members of the Board.

~~14.15.~~ SEVERABILITY AND REPEAL

15.1. Should any provision or part of this Bylaw be found to have been improperly enacted, for any reason, then such provision or part shall be ~~14.1.~~ severable from the remainder of this Bylaw and the Bylaw remaining

after such severance shall be effective and enforceable as if the provision or part found to be improperly enacted had not been enacted as part of this Bylaw.

~~14.2.~~ 15.2 Bylaws No. 1, 2, 3, 4, 5 and 6 of the Board of Directors of the Alberta Capital Region Wastewater Commission are hereby repealed as of the effective date of this Bylaw.

ENACTED at a meeting of the Board of Directors of the ALBERTA CAPITAL REGION WASTEWATER COMMISSION at a meeting duly held on the 16th ~~the~~ day of June, ~~2021~~2023.

Chairperson

Chief Executive Officer

BEING BYLAWS OF THE BOARD OF DIRECTORS OF THE ALBERTA CAPITAL REGION WASTEWATER COMMISSION

WHEREAS the Alberta Capital Region Wastewater Commission was established by the Alberta Capital Region Wastewater Commission Regulation, AR 129/85;

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from time to time;

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 - (b) Advise and inform the Board on the operation and affairs of the Commission, and;
 - (c) Perform the duties and functions and exercise the powers assigned to the CEO by the Board from time to time.

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- 8.3. The Board shall cause minutes to be made and books to be provided for the purpose of recording all Resolutions passed by and of all proceedings of any meeting of the Board and any Committee and shall cause to be recorded the names of all persons present at such meeting.

- 8.4. The Board shall at all times ensure that the requirements of the Act relating to the delivery of reports, financial statements and information to the Members of the Commission are met.
- 8.5. The Board shall from time to time appoint a bank or banks as banker or bankers for the Commission and the Board shall designate those officials and Members of the Board who are authorized to sign cheques on behalf of the Board.

9. HONORARIA AND EXPENSES FOR BOARD MEMBERS

- 9.1. The Board shall from time to time designate the remuneration payable to Members of the Board and provide for the reimbursement of Members of the Board for expenses incurred in the course of their duties as Members of the Board.

10. ADDITION AND REMOVAL OF MUNICIPALITIES

- 10.1. The Commission may agree to the addition of a municipality as a member of the Commission if, in the sole discretion of the Commission, there is sufficient capacity for the supply of services to the municipality and the addition of the municipality as a member is in the best interest of the Commission.

- 10.2. The addition of a municipality as a member of the Commission shall require the approval of two-thirds (2/3) of the Members of the Board and be subject to any terms and conditions established by the Board.

- 10.3. Without limitation to Section 10.2 herein, the Board may in its sole discretion require a municipality to make a payment to the Commission as a condition of the addition of that municipality as a member of the Commission. Any such payment shall be an amount determined by the Board to be reasonable, and may include but shall not be limited to:

- (a) A one-time membership fee payable to the Commission reflecting a proportionate share of the formation costs of the Commission plus applicable debt servicing costs;
- (b) A proportionate share of the capital costs incurred by the Commission for the provision or services; and
- (c) Any costs related to the provision of services by the Commission to the new member.

- 10.4. The withdrawal of any one or more of the Municipalities as a member of the Commission shall require the approval of two-thirds (2/3) of the Members of the Board and be subject to any terms and conditions established by the Board.

- 10.5. Without limitation to Section 10.4 herein, the Board may require a Municipality to enter into an agreement with the Commission as a condition of withdrawal of the Municipality as a member of the Commission. The form and terms and conditions of such agreement shall be determined by the Board, and may include but shall not be limited to:
- (i) the transition period for the withdrawal of the Municipality as a member of the Commission;
 - (ii) the withdrawing Municipality's entitlement, if any, to services from the Commission after its withdrawal;
 - (iii) the withdrawing Municipality's responsibility, if any, to pay for a portion of the Commission's debt servicing or capital costs;
 - (iv) the withdrawing Municipality's entitlement, if any, to ownership of any portion of the assets of the Commission used in the delivery of services, and;
 - (v) any other matter determined by the Board to be required to be addressed as a term of condition of the Member's withdrawal.
- 10.6. The Commission shall notify the Minister of Municipal Affairs of any change in the membership of the Commission within 60 days of the change in membership.

11. DISPOSAL OF ASSETS BY THE MEMBERS

- 11.1. The CEO, or their designate, has the authority to dispose of any assets owned by the Commission, including machinery, equipment, computers and office supplies, subject to the following restrictions:
- (a) The disposal of any asset or assets with a fair market value or proposed sale price of more than fifty thousand (\$50,000.00) dollars shall require the approval of two-thirds (2/3) of the Members of the Board and be subject to any terms and conditions established by the Board;
 - (b) The disposal of any land or assets identified as engineering structures shall require the approval of two-thirds (2/3) of the Members of the Board and be subject to any terms and conditions established by the Board.
- 11.2. The CEO may seek the Board's approval to dispose of an asset or assets other than those identified in Subsections 11.1(a) and (b) above if, in the opinion of the CEO, the approval of the Board is necessary or desirable.

12. DISESTABLISHMENT

- 12.1. Approval of (two-thirds) 2/3 of the Members of the Board is required to disestablish the Commission.
- 12.2. In the event that the Board approves the disestablishment of the Commission, the Board must at the time of approval specify further particulars of the procedure for the disestablishment including:
- (a) a timeline for disestablishment of the Commission, and;
 - (b) the treatment of assets and liabilities upon disestablishment of the Commission, which shall take into account each Municipality's respective contributions to the Commission in the form of any assets contributed to the Commission and historical consumption by the Municipality and include a process for the collection and disposition of any property and assets owned by the Commission and the discharge, assignment or transfer of the Commission's obligations.
- 12.3. The Commission shall, as of the date of the Board's decision to approve disestablishment of the Commission, cease to provide services or begin the process of ceasing to provide services except to the extent that the Commission is legally required to do so or as required for the beneficial winding-up of the business or affairs of the Commission.

13. PROVISION OF COMMISSION'S SERVICES

- 13.1 The Commission is authorized to supply sewage transmission and treatment services to its Members and to any additional persons to whom the Board decides to supply services to from time to time (the "Wastewater Services")
- 13.2 Without limitation to Section 13.1 herein, the Commission may in its discretion supply reclaimed water generated by the provision of the Treatment Services to any person to whom the Board decides to supply such reclaimed water to from time to time. The rates and applicable terms and conditions with respect to the supply of effluent water referred to herein shall be determined by the Board.

14. AMENDMENTS

- 14.1. This Bylaw may be amended from time to time upon thirty (30) days' notice of motion and approval of two-thirds (2/3) of the Members of the Board.

15. SEVERABILITY AND REPEAL

- 15.1. Should any provision or part of this Bylaw be found to have been improperly enacted, for any reason, then such provision or part shall be

severable from the remainder of this Bylaw and the Bylaw remaining after such severance shall be effective and enforceable as if the provision or part found to be improperly enacted had not been enacted as part of this Bylaw.

- 15.2 Bylaws No. 1, 2, 3, 4, 5 and 6 of the Board of Directors of the Alberta Capital Region Wastewater Commission are hereby repealed as of the effective date of this Bylaw.

ENACTED at a meeting of the Board of Directors of the ALBERTA CAPITAL REGION WASTEWATER COMMISSION at a meeting duly held on the 16th day of June, 2023.

Chairperson

Chief Executive Officer

Board Report

Date: March 17, 2023

Subject: Bylaw No 7, Fees and Charges Redline

Recommendation

THAT the Board receive Bylaw No. 7, Fees and Charges Redline Report as information and bring forward a bylaw amendment at the June 2023 Board Meeting.

Alignment to Priorities in Board's Strategic Plan

- Respecting our Environment
 - Release water of the highest possible quality into the North Saskatchewan River
- Responsible Leadership
 - Build Partnerships that Benefit the Commission and the Community
 - Keep Utility Rates Reasonable and Predictable for Member Municipalities

Discussion

Administration has completed a comprehensive review of Bylaw No 7, Fees and Charges. This bylaw was reviewed in 2021, with the changes to the MGA, but was originally developed in 1985. It currently meets the requirements delineated in the MGA.

In January 2023, the Board voted on changing the title of the General Manager to the Chief Executive Officer, and as a result the bylaw requires updating to reflect the title. With the updating of this Bylaw, Administration is recommending updating the name of the bylaw to Fees and Charges Bylaw to better reflect the nature of the bylaw.

Bylaw amendments require a 30-day notice of motion, and as such the Administration is recommending that the bylaw is updated at the June 2023 Board Meeting.

~~BYLAW NO. Z FEES AND CHARGES BYLAW~~

BEING A BYLAW OF THE BOARD OF DIRECTORS
OF THE ~~ALBERTA CAPITAL REGION SEWAGE-
WASTEWATER~~ COMMISSION TO GOVERN THE
FEES TO BE CHARGED BY THE COMMISSION

WHEREAS the ~~ALBERTA CAPITAL REGION SEWAGE—WASTEWATER~~ COMMISSION has been established by the Lieutenant Governor in council under Alberta Regulations 129/85 made pursuant to the Regional Municipal Services *Ad.* S.A. 1981 c.R-9.1, s.2; and

WHEREAS effective September 1st, 1995 the Regional Municipal Services *Ad.* will be replaced by provisions in the Municipal Government Act S.A. 1994 c.M-26.1: and

WHEREAS the Board of Directors of the ~~ALBERTA CAPITAL REGION SEWAGE WASTEWATER~~ COMMISSION **wishes** to make a Bylaw pursuant to S.602.07 of the Municipal Government *Ad.* S.A. 1994 c.M-26.1 governing the fees to be charged by the Commission for services provided to its customers or to any class of its customers.

NOW THEREFORE **BE IT ENACTED** as a Bylaw of the Board of Directors of the ~~ALBERTA CAPITAL REGION SEWAGE-WASTEWATER~~ COMMISSION as follows:

1. (a) Definitions

In this Bylaw:

- (i) "Board" shall mean the Board of Directors of the ~~ALBERTA CAPITAL REGION SEWAGE-WASTEWATER~~ COMMISSION appointed from time to time pursuant to this Bylaw;
- (ii) "Commission" shall mean the ~~ALBERTA CAPITAL REGION SEWAGE-WASTEWATER~~ COMMISSION;
- (iii) "Members" shall mean the County of Leduc, the City of Leduc, the ~~Town-City~~ of Beaumont, Parkland County, the Town of Stony Plain, the City of Spruce Grove, the City of St. Albert, the Municipal District of Sturgeon, the Town of Morinville, the Town of Gibbons, the City of Fort Saskatchewan and Strathcona County and such

other municipal authorities as may be made Commission members.

2. The fees charged by the Commission for services provided to Members shall not be less than the amount necessary to cover the estimated expenditures and expenses less any grants, transfers from reserves, interest, rents and any other revenues.
3. The fees charged by the Commission for services provided to non Member customers shall be the amount as determined by the Board.
4. The fees shall be set annually by the Board at the time the annual budgets are approved by the Board.

ENACTED at a meeting of the Board of Directors of the **ALBERTA** CAPITAL REGION **SEWAGE-WASTEWATER** COMMISSION at a meeting duly held on the ~~13th~~ **16th** day of ~~October~~ **June**, A.O. ~~1995~~ **2023**.

~~Chairman~~ **Chairperson**

~~General Manager~~ **Chief Executive Officer**

FEES AND CHARGES BYLAW

BEING A BYLAW OF THE BOARD OF DIRECTORS OF THE ALBERTA CAPITAL REGION WASTEWATER COMMISSION TO GOVERN THE FEES TO BE CHARGED BY THE COMMISSION

WHEREAS the ALBERTA CAPITAL REGION WASTEWATER COMMISSION has been established by the Lieutenant Governor in council under Alberta Regulations 129/85 made pursuant to the Regional Municipal Services *Ad. S.A. 1981 c.R-9.1, s.2*; and

WHEREAS effective September 1st, 1995 the Regional Municipal Services *Ad.* will be replaced by provisions in the Municipal Government Act *S.A. 1994 c.M-26.1*: and

WHEREAS the Board of Directors of the ALBERTA CAPITAL REGION WASTEWATER COMMISSION **wishes** to make a Bylaw pursuant to S.602.07 of the Municipal Government *Ad. S.A. 1994 c.M-26.1* governing the fees to be charged by the Commission for services provided to its customers or to any class of its customers.

NOW THEREFORE **BE IT ENACTED** as a Bylaw of the Board of Directors of the ALBERTA CAPITAL REGION WASTEWATER COMMISSION as follows:

1. (a) Definitions

In this Bylaw:

- i. "Board" shall mean the Board of Directors of the ALBERTA CAPITAL REGION WASTEWATER COMMISSION appointed from time to time pursuant to this Bylaw;
 - ii. "Commission" shall mean the ALBERTA CAPITAL REGION WASTEWATER COMMISSION;
 - iii. "Members" shall mean the County of Leduc, the City of Leduc, the City of Beaumont, Parkland County, the Town of Stony Plain, the City of Spruce Grove, the City of St. Albert, the Municipal District of Sturgeon, the Town of Morinville, the Town of Gibbons, the City of Fort Saskatchewan and Strathcona County and such other municipal authorities as may be made Commission members.
2. The fees charged by the Commission for services provided to Members shall not be less than the amount necessary to cover the estimated expenditures and expenses less any grants, transfers from reserves, interest, rents and any other revenues.
3. The fees charged by the Commission for services provided to non Member customers shall be the amount as determined by the Board.

4. The fees shall be set annually by the Board at the time the annual budgets are approved by the Board.

ENACTED at a meeting of the Board of Directors of the ALBERTA CAPITAL REGION WASTEWATER COMMISSION **at a** meeting duly held on the 16th day of June, A.O. 2023.

Chairperson

Chief Executive Officer

Board Report

Date: March 17, 2023

Subject: Bylaw No. 8, Quality of Wastewater Redline

Recommendation

THAT the Board receive Bylaw No. 8, Quality of Wastewater Redline Report as information and bring forward a bylaw amendment at the June 2023 Board Meeting.

Alignment to Priorities in Board's Strategic Plan

- Respecting our Environment
 - Release water of the highest possible quality into the North Saskatchewan River
- Responsible Leadership
 - Build Partnerships that Benefit the Commission and the Community
 - Keep Utility Rates Reasonable and Predictable for Member Municipalities

Discussion

Administration has completed a comprehensive review of Bylaw No 8, Quality of Wastewater. This bylaw was last reviewed in 2021, with the changes to the MGA, but was originally developed in 1985. It currently meets the requirements delineated in the MGA.

In January 2023, the Board voted on changing the title of the General Manager to the Chief Executive Officer, and as a result the bylaw requires updating to reflect the title. With the updating of this Bylaw, Administration is recommending updating the name of the bylaw to Quality of Wastewater Bylaw to better reflect the nature of the bylaw.

Bylaw amendments require a 30-day notice of motion, and as such the Administration is recommending that the bylaw is updated at the June 2023 Board Meeting.

QUALITY OF WASTEWATER BYLAW

**BEING A BY-LAW OF THE BOARD OF DIRECTORS OF THE ALBERTA CAPITAL REGION
WASTEWATER COMMISSION GOVERNING THE QUALITY OF THE WASTEWATER ACCEPTED BY
THE COMMISSION**

WHEREAS THE ALBERTA CAPITAL REGION WASTEWATER COMMISSION (hereinafter be referred to as ACRWC) has been established by the Lieutenant Governor in Council under Alberta Regulation 129/85 made pursuant to Part 15.1 of the Municipal Government Act (Alta); RSA 2000, c. M-26 and

WHEREAS the Board of Directors of ACRWC has been duly appointed pursuant to s. 602.04(3)(b) of the said Act and the Board of Directors now wishes to make a By-Law pursuant to s. 602.07(3) of the said Act governing the quality of wastewater accepted by ACRWC;

NOW THEREFORE BE IT ENACTED as a By-Law of the Board of Directors of ACRWC as follows:

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INTRODUCTION

This Bylaw outlines controls for the discharge of pollutants to the sewer system. The objectives of the Bylaw are to:

- Protect the sewer system from corrosion, other damage and obstruction.
- Protect the wastewater treatment plant process from upset.
- Protect the public, ACRWC's and municipal workers and property from hazardous conditions (such as explosions).
- Assist optimum wastewater system efficiency by preventing uncontaminated water from entering the system
- Protect wastewater sludge and biosolids quality.
- Protect the environment from contaminants that are not removed by ACRWC's Wastewater Treatment Plant or EPCOR's Gold Bar Wastewater Treatment Plant.
- Assist ACRWC and its Member Municipalities in maintaining compliance with the operating conditions established by the province of Alberta

1. DEFINITIONS

In this Bylaw:

- i. "ACCREDITED LABORATORY" ~~shall mean~~ **shall mean** Any laboratory accredited by an authorized accreditation body in accordance with a standard based on "CAN-P-1585: Requirements for the Accreditation of Environmental Testing Laboratories" established by the Standards Council of Canada, as amended, or "ISO/IEC/EN 17025: General Requirements for Competence of Calibration and Testing Laboratories" established by the International Organization for Standardization, as amended.
- ii. "ACRWC" ~~shall mean~~ **shall mean** —Alberta Capital Region Wastewater Commission
- iii. "ADDITIONAL OVERSTRENGTH SURCHARGE" ~~shall mean~~ **shall mean** ~~—t~~The rate per kilogram per cubic meter of water consumed and charged to a user who releases wastewater to the wastewater works that exceeds one or more constituent concentrations set out in Column B of Schedule "C".
- iv. "BEST MANAGEMENT PRACTICES (BMP)" ~~shall mean~~ **shall mean** ~~—a~~An integrated plan to control and reduce the release of restricted and prohibited waste into the wastewater works to a practicable extent, through methods including physical controls, pretreatment processes, operational procedures and staff training.
- v. "BIOCHEMICAL OXYGEN DEMAND (BOD)" ~~shall mean~~ **shall mean** ~~—t~~The five-day BOD which is the determination of the molecular oxygen utilized during a five-day incubation period for the biochemical degradation of organic material (carbonaceous demand), and the oxygen used to oxidize inorganic material such as sulphides and ferrous iron, and the amount of oxygen used to oxidize reduced forms of nitrogen (nitrogenous demand) as determined by the appropriate procedure in Standard Methods.
- vi. "BIOMEDICAL WASTE" ~~shall mean~~ **shall mean** ~~—b~~Biomedical waste as defined in the Province of

Alberta's Waste Control regulation, as amended from time to time.

- vii. "BLOWDOWN WATER" shall mean ~~r~~Recirculating water that is discharged from a cooling or heating water system for the purpose of controlling the level of water in the system or for the purpose of discharging from the system materials contained in the system, the further build-up of which would or might impair the operation of the system.
- viii. "CHEMICAL OXYGEN DEMAND or (COD)" shall mean ~~a~~A measure of the capacity of water to consume oxygen as a result of oxidation of inorganic chemicals and decomposition of organic matter.
- ix. "CHIEF EXECUTIVE OFFICER OR (CEO)" shall mean the CEO of the Commission appointed by the Board of Directors, pursuant to Section 5 of the Being Bylaws of the ACRWC.
- x. "CLEAR-WATER WASTE" shall mean ~~i~~Includes non-contact cooling water and other water that has not come into contact with wastewater contaminant sources.
- xi. "CODE OF PRACTICE" shall mean ~~a~~a set of practices applicable to specific industrial, commercial or institutional sector operations; a code of practice identifies mandatory procedures, equipment, training or other provisions required as a condition of wastewater discharge into the wastewater works system by the specified sector discharger. A code of practice may be included in approved Best Management Practices.
- xii. "COMBUSTIBLE LIQUID" – shall mean ~~A~~a liquid that has a flash point not less than 37.8 degrees Celsius and not greater than 93.3 degrees Celsius.
- xiii. "COMPLIANCE PROGRAM" shall mean ~~t~~The necessary steps undertaken by a discharger to bring wastewater discharged into the wastewater works into compliance with the terms and conditions of this Bylaw or related permit. Compliance programs are applicable to existing dischargers only; new discharges must fully comply with the requirements of this bylaw.
- xiv. "COMPOSITE SAMPLE" shall mean ~~A~~a volume of wastewater, storm water, uncontaminated water, clear- water or effluent made up of four or more grab samples that have been combined automatically or manually and taken at intervals during a sampling period.
- xv. "CONNECTION or DRAIN" shall mean ~~t~~That part or those parts of any pipe or system of pipes leading directly to a wastewater works.
- xvi. "COOLING WATER" shall mean ~~w~~Water that is used in a process for the purpose of removing heat and that has not, by design, come into contact with any raw material, intermediate product, waste product or finished product, but does not include blowdown water.
- xvii. "DENTAL AMALGAM" shall mean ~~A~~a dental filling material consisting of an amalgam of mercury, silver and other materials such as copper, tin or zinc.

- xviii. "DENTAL AMALGAM SEPARATOR" shall mean ~~—a~~Any technology, or combination of technologies, designed to separate dental amalgam particles from dental operation wastewater.
- xix. "DESIGNATED SECTOR OPERATIONS" shall mean ~~—means~~ industrial, commercial or institutional sectors required to adopt Codes of Practice approved by ACRWC.

- xx. “DESIGNATED SEWER OFFICER” shall mean ~~—t~~The person appointed by the Municipality, and his or her successors or his or her duly authorized representative. (Note the Designated Sewer Officer may hold the position of ~~General Manager~~Chief Executive Officer, City Manager, Inspector or other position suitable to the organization of the Municipality.)
- xxi. “DOMESTIC WASTEWATER” shall mean ~~—s~~Sanitary waste produced on residential premises, or sanitary waste and wastewater from sanitary facilities produced on a non-residential property.
- xxii. “EFFLUENT” shall mean ~~—l~~iquid flowing out of a facility or premises into a sewer.
- xxiii. “FLASHPOINT” shall mean ~~—t~~The temperature at which enough vapour collects on the surface of a liquid to become flammable. The lower the flashpoint, the more flammable the material is.
- xxiv. “FLOW MONITORING POINT” shall mean ~~—a~~An access place to the private sewer connection for the purpose of:
 - A. Measuring the rate or volume of wastewater, storm water, clear water waste or subsurface water released from the premises; and
 - B. Collecting representative samples of the wastewater, storm water, clear water waste or subsurface water released from the premises.
- xxv. “FUELS” shall mean ~~—Alcohol~~alcohol, gasoline, naphtha, diesel fuel, fuel oil or any other ignitable substance intended for use as a fuel.
- xxvi. “GRAB SAMPLE” shall mean ~~—A~~a volume of wastewater, storm water, uncontaminated water or effluent which is collected over a period not exceeding 15 minutes.
- xxvii. “GROUND WATER” shall mean ~~—Water~~water beneath the earth’s surface accumulating as a result of seepage.
- xxviii. “HAULED WASTE” shall mean ~~—Any~~any industrial waste which is transported to and deposited into any location in the wastewater works, excluding hauled wastewater.
- xxix. “HAULED WASTEWATER” shall mean ~~—Waste~~waste removed from a collection system, including a cesspool, a septic tank system, a privy vault or privy pit, a chemical toilet, a portable toilet or a wastewater holding tank.
- xxx. “HAZARDOUS SUBSTANCES” shall mean
 - A. Any substance or mixture of substances, other than a pesticide, that exhibits characteristics of flammability, corrosivity, reactivity or toxicity; and
 - B. Any substance that is designated as a hazardous substance within the meaning of the

Province of Alberta's Waste Control Regulation 192/1996 as amended from time to time.

- xxxi. “HAZARDOUS WASTE” shall mean ~~—a~~Any Hazardous Substance disposed of as ~~waste~~.
- xxxii. “IGNITABLE WASTE” shall mean ~~—a~~A substance that:
- A. Is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 93 degrees Celsius, as determined by the Tag Closed Cup Tester (ASTM D-56-97a), the Setaflash Closed Cup Tester (ASTM D-3828-97 or ASTM D-3278-96e1), the Pensky-Martens Closed Cup Tester (ASTM D-93-97), or as determined by an equivalent test method;
 - B. Is a solid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a danger;
 - C. Is an ignitable compressed gas as defined under federal or provincial regulation as appropriate for the Member Municipality, as amended; or
 - D. Is an oxidizing substance as defined under federal or provincial regulation as appropriate for the Member Municipality, as amended.
- xxxiii. “INDUSTRIAL” shall mean ~~—o~~Of or pertaining to manufacturing, commerce, trade, business or institutions as distinguished from domestic or residential.
- xxxiv. “INDUSTRY” shall mean ~~—a~~Any owner or operator of industrial, commercial or institutional premises from which there is a discharge of any matter directly or indirectly into a sanitary sewer, combined sewer or storm sewer of a Member Municipality, the City of Edmonton, or ACRWC.
- xxxv. “INSPECTOR” shall mean ~~—a~~A person authorized by ACRWC and/or Member Municipality to carry out observations and inspections and take samples as prescribed by this bylaw.
- xxxvi. “INSTITUTION” shall mean ~~—a~~A facility, usually owned by a government, operated for public purposes, such as schools, universities, medical facilities (hospitals, nursing stations, nursing homes), museums, prisons, government offices, military bases. Some of these facilities produce non-residential discharges to sewers from, for example, laboratories, chemical use, or industrial processes.
- xxxvii. “LOWER EXPLOSIVE LIMIT or (LEL)” shall mean ~~—t~~The concentration of a gas or vapour in the air. Below the LEL, there is not enough vapour in the air to fuel a fire.
- xxxviii. “MATTER” shall mean ~~—includes~~any solid, liquid or gas.
- xxxix. “MEMBER MUNICIPALITIES” shall mean ~~—t~~Those municipalities who are members of ACRWC.

- xl. “MONITORING ACCESS POINT” shall mean ~~—A~~an access point, such as a chamber, in a private sewer connection to allow for observation, sampling and flow measurement of the wastewater, uncontaminated water or storm water therein.

- xli. "MUNICIPAL SEWER CONNECTION" shall mean ~~That that~~ part of any drain leading from the private sewer connection and connected to the municipal sewer and located within the limits of the public road allowance, or other public lands or public land interests held for sewerage purposes.
- xlii. "MULTIPLE MUNICIPAL SEWER CONNECTION" shall mean ~~A a~~ municipal sewer connection providing service to two or more premises.
- xlili. "NON-CONTACT COOLING WATER" shall mean ~~w~~Water which is used to reduce temperature for the purpose of cooling and which does not come into direct contact with any raw material, intermediate or finished product other than heat.
- xliv. "NON-DOMESTIC WASTEWATER" shall mean ~~All all~~ Wastewater except Domestic Wastewater, Uncontaminated Water, and Septic Tank Waste.
- xlv. "OIL AND GREASE" shall mean ~~n~~Hexane extractable matter as described in Standard Methods.
- xlvi. "OIL – WATER SEPARATOR" shall mean ~~a~~ a three-stage oil-water separator that meets the Standard for Oil- Water Separators (ULC-S656-14) prepared by Underwriters' Laboratories of Canada or the equivalent oil-water separation technology able to achieve an effluent quality of 100 mg/L of oil and grease (mineral-synthetic/hydrocarbons) or less.
- xlvii. "OVERSTRENGTH" shall mean ~~w~~Wastewater released to a sewer that is higher in concentration for one or more constituent concentrations set out in Column A of Schedule "C" of this Bylaw.
- xlviii. "OVERSTRENGTH SURCHARGE" shall mean ~~t~~the rate per kilogram per cubic meter of water consumed and charged to a user who releases wastewater to the sewer that exceeds one or more constituent concentrations set out in Column A of Schedule 'C'.
- xliv. "PATHOLOGICAL WASTE" shall mean ~~p~~Pathological waste within the meaning of the Canadian Human Pathogens and Toxins Act, as amended.
 - I. "PCBs" shall mean ~~a~~Any monochlorinated or polychlorinated biphenyl or any mixture of them or mixture that contains one or more of them.
 - li. "PERSON" shall mean ~~a~~An individual, association, partnership, corporation, municipality or an agent or employee of such a person.
 - lii. "PESTICIDE" shall mean ~~a~~ a pesticide regulated under the Canadian Pests Control Products Act and the Province of Alberta's Pesticide (Ministerial) Regulation and Pesticide Sales, Handling, Use and Application Regulation, all as amended.
 - liii. "PRETREATMENT" – shall mean ~~t~~The reduction, elimination or alteration of matter in wastewater prior to discharge into the wastewater works. This reduction or alteration can be obtained by physical, chemical, or biological processes, through pollution prevention,

or by other means, except by diluting the concentration of the pollutants.

- liv. "PRETREATMENT PROCESSES" shall mean —one or more treatment processes or devices designed to remove sufficient matter from wastewater discharged into the municipal sewer connection to enable compliance with effluent limits established in this Bylaw. Pretreatment processes prevent or reduce and control the discharge or deposit of matter from the discharger's premises into the municipal sewer connection.
- lv. "PRIVATE SEWER CONNECTION/PRIVATE DRAINAGE SYSTEM" shall mean —that part of any drain or system of drains, including drains or subsurface drainage pipe for surface or subsurface drainage of the land in or adjacent to a building, lying within the limits of the private lands and leading to a municipal sewer connection, the maintenance of which is the property owner's responsibility.
- lvi. "PROHIBITED WASTE" shall mean —~~means~~ prohibited waste as defined in Schedule 'A' of this Bylaw.
- lvii. "REACTIVE WASTE" shall mean— ~~A~~a substance that:
 - A. Is normally unstable and readily undergoes violent changes without detonating;
 - B. Reacts violently with water;
 - C. Forms potentially explosive mixtures with water;
 - D. When mixed with water, generates toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment;
 - E. Is a cyanide or sulphide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment;
 - F. Is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;
 - G. Is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or
 - H. Is an explosive as defined in the regulations under the Canadian Explosives Act, as amended.
- lviii. "RESTRICTED WASTE" shall mean —~~means~~ restricted waste as defined in Schedule 'B' of this Bylaw.
- lix. "SAMPLING PORT" shall mean —~~A~~a valve, tap, or similar device on equipment, a drain pipe or at another suitable location, to allow for sampling, consistent with technical guidelines that the ACRWC and/or Member Municipality may establish from time to time.
- lx. "SANITARY SEWER" shall mean —~~A~~a sewer for the collection and transmission of domestic or industrial wastewater or any combination thereof.
- lxi. "SEPTIC TANK WASTE" shall mean —any Waste extracted from a cesspool, septic tank, sewage holding tank, seepage pit, interceptor or other containment for human excretion and wastes.

- lxii. "SEWER" shall mean ~~A~~ a pipe, conduit, drain, open channel or ditch for the collection and transmission of wastewater, storm water or uncontaminated water, or any combination thereof.

- lxiii. "SPILL" shall mean ~~A~~a direct or indirect discharge into the wastewater works, storm sewer or the natural environment which is abnormal in quantity or quality in light of all the circumstances of the discharge.
- lxiv. "STORM SEWER" shall mean ~~A~~a sewer for the collection and transmission of uncontaminated water, storm water, drainage from land or from a watercourse or any combination.
- lxv. "STORM WATER" shall mean ~~The~~the water running off the surface of a drainage area during and immediately after a period of rain or snow melt.
- lxvi. "SUBSURFACE DRAINAGE PIPE" shall mean ~~A~~a pipe that is installed underground to intercept and convey subsurface water, and includes foundation drain pipes.
- lxvii. "SUBSURFACE WATER" shall mean ~~Groundwater~~groundwater including foundation drain water.
- lxviii. "STANDARD METHODS" shall mean ~~A~~a procedure or method set out in *Standard Methods for the Examination of Water and Wastewater* published jointly by the American Public Health Association, American Water Works Association and the Water Environment Federation, recent or latest edition or approved in writing by ACRWC.
- lxix. "TOTAL SUSPENDED SOLIDS or (TSS)" shall mean ~~I~~insoluble matter in liquid that is removable by filtration, as determined by the appropriate procedure described in Standard Methods.
- lxx. "TOXIC SUBSTANCE" shall mean ~~any~~any substance defined as toxic under the *Canadian Environmental Protection Act* 1999, as amended from time to time and within the meaning of Alberta's Waste Control Regulation, as amended from time to time.
- lxxi. "UNCONTAMINATED WATER" shall mean ~~w~~water with a level of quality which is typical of potable water normally supplied by a Member Municipality.
- lxxii. "WASTE DISPOSAL SITE LEACHATE" ~~shall mean~~ ~~T~~the liquid containing dissolved or suspended contaminants which emanates from waste (solid waste or garbage) and is produced by water percolating through waste or by liquid in waste.
- lxxiii. "WASTE RADIOACTIVE SUBSTANCES" shall mean ~~s~~Substances defined in the federal *Nuclear Safety and Control Act* and the regulations passed thereunder, as amended.
- lxxiv. "WASTEWATER" shall mean ~~means~~the composite of water and water-carried wastes from residential, commercial, industrial or institutional premises or any other source.
- lxxv. "WASTEWATER SLUDGE" shall mean ~~s~~Solid material recovered from the wastewater treatment process.
- lxxvi. "WASTEWATER TREATMENT FACILITY" shall mean ~~a~~Any structure or thing used for the

physical, chemical, biological or radiological treatment of wastewater, and includes sludge treatment, wastewater sludge storage and disposal facilities.

- lxxvii. “WASTEWATER DISCHARGE PERMIT” shall mean ~~—A~~a permit issued by ACRWC which will govern the discharge of non-domestic waste and hauled wastewater into a sewer.
- lxxviii. “WASTEWATER WORKS” shall mean ~~—Any~~any works for the collection, transmission, treatment and disposal of wastewater, or any part of such works, but does not include plumbing or other works to which the applicable Building Code applies. Wastewater works, sanitary sewer and sewer in this Bylaw refer to the Works owned by ACRWC, those owned by the Member Municipalities, and those owned by the City of Edmonton which direct wastewater to ACRWC facilities pursuant to the Regional Exchange Agreement entered in 2008.
- lxxix. “WATERCOURSE” shall mean ~~—An~~an open channel, ditch or depression, either natural or artificial, in which flow of water occurs either continuously or intermittently.

2. SANITARY SEWER REQUIREMENTS

- (1) No person shall release, or permit the release of, any matter into the sanitary sewer or wastewater works except:
 - (a) Domestic wastewater;
 - (b) Non-domestic wastewater that complies with the requirements of this Bylaw;
 - (c) Hauled wastewater, including septage, that complies with the requirements of this Bylaw, or where a Wastewater Discharge Permit has been issued by ACRWC;
 - (d) Storm water, Clear-water waste, Subsurface water or other matter where a Wastewater Discharge Permit has been issued by ACRWC.
- (2) No person shall release, or permit the release of, any prohibited substance listed in Schedule ‘A’ of this Bylaw into the wastewater works.
- (3) No person shall release, or permit the release of, any restricted substance which exceeds the respective concentrations listed in Schedule ‘B’ of this Bylaw into the wastewater works without a valid Wastewater Discharge Permit.
- (4) When required by ACRWC, non-domestic and hauled wastewater dischargers shall complete and submit an **“Abbreviated Wastewater Discharge Application”** (available on ACRWC website: www.acrwc.ab.ca) to ACRWC.
- (5) When required by ACRWC, non-domestic and hauled wastewater dischargers shall complete and submit a **“Detailed Wastewater Discharge Application”** (available on ACRWC website: www.acrwc.ab.ca) to ACRWC.
- (6) When required by ACRWC, non-domestic and hauled wastewater dischargers shall not discharge to the wastewater works system until the discharger has obtained a **“Wastewater Discharge Permit”** from ACRWC.
- (7) ACRWC may issue, and amend, a Wastewater Discharge Permit to allow the discharge of non-domestic waste and hauled wastewater into a sewer upon such terms and conditions as ACRWC considers appropriate and, without limiting the generality of the foregoing, may in the Wastewater Discharge Permit:
 - (a) Place limits and restrictions on the quantity, composition, frequency and nature of the wastewater permitted to be discharged; and

- (b) Require the holder of a Wastewater Discharge Permit to repair, alter, remove, add to, or construct new pretreatment facilities; and
 - (c) Provide that the Wastewater Discharge Permit will expire on a specified date, or upon the occurrence of a specified event.
- (8) ACRWC may issue a **Discharge Abatement Order** to a Member Municipality requiring the Member Municipality to:
- (a) Require and direct a person within the boundary of that Member Municipality to alter the quantity, composition, duration and timing of the discharge or cease discharge of non-domestic waste or hauled wastewater to a sewer or wastewater facility;
 - (b) Comply with any terms or conditions that could be included in a Wastewater Discharge Permit; and
 - (c) Shut down all non-compliant releases.
- ACRWC may amend or cancel a Discharge Abatement Order.

3. PROHIBITION OF DILUTION

- (1) No person shall discharge directly or indirectly, or permit the discharge or deposit of wastewater into a sanitary sewer where water has been added to the discharge for the purposes of dilution to achieve compliance with Schedule 'A' or Schedule 'B' of this Bylaw.

4. SAMPLING

- (1) Where sampling is required for the purposes of determining the concentration of constituents in the wastewater, storm water or uncontaminated water, the sample may:
- (a) Be collected manually or by using an automatic sampling device; and
 - (b) Contain additives for its preservation.
- (2) For the purpose of determining compliance with Schedules 'A' or 'B', discrete wastewater streams within premises may be sampled, at the discretion of ACRWC.
- (3) Any single grab sample may be used to determine compliance with Schedules 'A' and 'B'.
- (4) All tests, measurements, analyses and examinations of wastewater, its characteristics or contents pursuant to this Bylaw shall be carried out in accordance with "Standard Methods" and be performed by an Accredited Laboratory for analysis of the particular substance(s) using a method which is within the laboratory's scope of accreditation or to the satisfaction of ACRWC as agreed in writing prior to sample analysis.

5. SELF MONITORING BY DISCHARGER

- (1) The discharger shall complete any monitoring or sampling of any discharge to a wastewater works as required by ACRWC, and provide the results to ACRWC in the form specified by ACRWC.
- (2) The obligations set out in or arising out of 5(1) shall be completed at the expense of the discharger.

6. ADDITIONAL REQUIREMENTS

6.1 FOOD-RELATED GREASE INTERCEPTORS

- (1) Every owner or operator of a restaurant or other industrial, commercial or institutional premises where food is cooked, processed or prepared, for which the premises is connected directly or indirectly to a sanitary sewer, shall take all necessary measures to ensure that oil and grease are prevented from entering the sanitary sewer in excess of the provisions of this bylaw. Oil & Grease interceptors shall not discharge to storm sewers.
- (2) The owner or operator of the premises referred to in subsection 6.1(1) shall install, operate, and properly maintain an oil and grease interceptor in any piping system at its premises that connects directly or indirectly to a sewer. The oil and grease interceptors shall be installed in compliance with the most current requirements of the applicable Building Code and the National Plumbing Code of Canada, as amended.
- (3) All oil and grease interceptors shall be maintained in good working order according to the manufacturer's recommendations. The testing, maintenance and performance of the interceptor shall meet the requirements of CAN/CSA B-481. Traps should be cleaned before the thickness of the organic material and solids residuals is greater than twenty-five percent of the available volume; cleaning frequency should not be less than every four weeks. Maintenance requirements should be available at the workplace where the grease interceptor is installed. Maintenance and clean out shall be documented at the time it is performed.
- (4) A maintenance schedule and record of maintenance carried out shall be submitted to ACRWC upon request for each interceptor installed.
- (5) The owner or operator of the restaurant or other industrial, commercial or institutional premises where food is cooked, processed or prepared, shall, for two years, keep the records which document the maintenance and clean outs performed for interceptor clean-out and oil and grease disposal.

6.2 VEHICLE AND EQUIPMENT SERVICE OIL AND GREASE INTERCEPTORS

- (1) Every owner or operator of a vehicle or equipment service station, repair shop or garage or of an industrial, commercial or institutional premises or any other establishment where motor vehicles are repaired, lubricated or maintained and where the sanitary discharge is directly or indirectly connected to a sanitary sewer shall install an oil and grease interceptor designed to prevent motor oil and lubricating grease from passing into the sanitary sewer in excess of the provisions of this bylaw. Oil and Grease interceptors shall not discharge to storm sewers.
- (2) The owner or operator of the premises referred to in Subsection 6.2(1) shall install, operate, and properly maintain an oil and grease interceptor in any piping system at its premises that connects directly or indirectly to a sewer. The oil and grease interceptors shall be installed in compliance with the most current requirements of the applicable

Building Code and be maintained as recommended by the Canadian Fuels Association (formerly the Canadian Petroleum Products Institute).

- (3) All oil and grease interceptors and separators shall be maintained in good working order and according to the manufacturer's recommendations and shall be inspected regularly to ensure performance is maintained to the manufacturer's specifications for performance and to ensure the surface oil and sediment levels do not exceed the recommended level. In the absence of manufacturer's recommendations, the floating oil and grease shall not accumulate in the final stage chamber of the oil and grease separator in excess of 5% of the wetted height and the settled solids shall not accumulate in the final stage chamber of the oil and grease separator in excess of 25% of the wetted height. Maintenance and clean out shall be documented at the time it is performed.
- (4) A maintenance schedule and record of maintenance shall be submitted to ACRWC upon request for each oil and grease interceptor installed.
- (5) The owner or operator of the premises as set out in Subsection 6.2(1), shall, for two years, keep the records which document the maintenance and clean outs performed for interceptor clean-out and oil and grease disposal.

6.3 SEDIMENT INTERCEPTORS

- (1) Every owner or operator of the premises from which sediment may directly or indirectly enter a sewer, including but not limited to premises using a ramp drain or area drain and vehicle wash establishments, shall take all necessary measures to ensure that such sediment is prevented from entering the drain or sewer in excess of the limits in this Bylaw.
- (2) All sediment interceptors shall be maintained in good working order according to manufacturer's recommendations and shall be inspected regularly to ensure performance is maintained to the manufacturer's specifications for performance. In the absence of manufacturer's recommendations, the settled solids shall not accumulate in the final stage chamber of the sediment interceptor in excess of 25% of the wetted height. Maintenance and clean out shall be documented at the time it is performed.
- (3) The owner or operator of a premises as referred to in Subsection 6.3(1), shall, for 2 years, keep the records which document interceptor clean-out and sediment disposal.
- (4) A maintenance schedule and record of maintenance shall be submitted to ACRWC upon request for each sediment interceptor installed.

6.4 DENTAL WASTE AMALGAM SEPARATOR

- (1) Every owner or operator of the premises from which dental amalgam may be discharged, which waste may directly or indirectly enter a sewer, shall install, operate and properly maintain dental amalgam separator(s) with at least 95% efficiency in amalgam weight and certified *ISO 11143 – "Dentistry - Amalgam Separators"*, in any piping system at its premises that connects directly or indirectly to a sewer, except where the sole dental-

related practice at the premises consists of one or more of the following specialties or type of practice:

- (a) Orthodontics and dentofacial orthopedics;
 - (b) Oral and maxillofacial surgery;
 - (c) Oral medicine and pathology;
 - (d) Periodontics; or
 - (e) A dental practice consisting solely of visits by a mobile dental practitioner who prevents any dental amalgam from being released directly or indirectly to the wastewater works.
- (2) Notwithstanding compliance with Subsection 6.4 (1), all persons operating or carrying on the business of a dental practice shall comply with Schedules 'A' and 'B' of this Bylaw.
 - (3) All dental waste amalgam separators shall be maintained in good working order and according to the manufacturer's recommendations.
 - (4) A maintenance schedule and record of maintenance shall be submitted to the ACRWC upon request for each dental amalgam separator installed.

6.5 FOOD WASTE GRINDERS

- (1) In the case of industrial, commercial or institutional premises where food waste grinding devices are installed in accordance with the Building Code, the effluent from such food waste grinding devices must comply with Schedule 'A' and Schedule 'B'.

6.6 PRETREATMENT FACILITIES

- (1) When not adhering to the requirements and prohibitions to the bylaw or where required by ACRWC, the owner or operator shall install on the premises, and prior to the sampling point, a wastewater pretreatment facility.
- (2) The owner or operator shall ensure the design, operation and maintenance of the pretreatment facility achieves the treatment objectives and operates and is maintained in accordance with the manufacturer's recommendations.
- (3) The owner or operator shall not deposit the waste products from the pretreatment facility in a wastewater works and shall ensure any waste products from the pretreatment facility are disposed of in a safe manner.
- (4) The maintenance records and waste disposal records shall be submitted to ACRWC upon request.
- (5) The owner or operator shall keep documentation pertaining to the pretreatment facility and waste disposal for two years.

7. HAULED WASTEWATER/WASTE

- (1) No person shall discharge hauled wastewater/waste to the wastewater works unless:

- (a) The carrier of the hauled wastewater/waste, operating as a waste management system is certified according to all applicable federal and provincial legislation, as amended from time to time;
 - (b) The carrier meets all conditions for discharge that are or may be set from time to time with respect to the discharge of hauled wastewater/waste by ACRWC; and
 - (c) Hauled wastewater/waste meets the conditions set out in all applicable federal and provincial environment protection regulations, as amended from time to time.
- (2) No person shall discharge or permit the discharge of hauled wastewater/waste to the wastewater works:
- (a) At a location other than a hauled wastewater/waste discharge location approved by ACRWC;
 - (b) Without a manifest, in a form approved by the Member Municipality of ACRWC in which the hauled wastewater/waste is being discharged, completed and signed by the carrier and deposited in an approved location at the time of discharge; and
 - (c) Without the use of a discharge hose placed securely in the discharge port at the approved location.

8. NON-CONTACT COOLING WATER

- (1) The discharge of non-contact cooling water or uncontaminated water to a sanitary sewer or from any residential property is prohibited unless the discharge is in accordance with a Wastewater Discharge Permit.

9. WATER ORIGINATING FROM A SOURCE OTHER THAN THE MUNICIPAL WATER SUPPLY

- (1) The discharge of water originating from a source other than the Municipality's water supply, including storm water or groundwater, directly or indirectly to a sanitary sewer is prohibited, unless:
- (a) The discharge is in accordance with a Wastewater Discharge Permit.

10. SPILLS

(1) In the event of a spill to a wastewater works, the person responsible or the person having the charge, management and control of the spill shall:

- (a) immediately notify and provide any requested information with regard to the spill to:
 - (i) If there is any immediate danger to human health and/or safety
 - a. 9-1-1 emergency
 - b. The applicable Member Municipality's Utility Department's emergency number. (The member shall then notify ACRWC's Wastewater Treatment Plant's Control Room at 780 416 9967)

or

- (ii) If there is no immediate danger:

- a. The applicable Member Municipality's Utility Department's emergency number. (The member shall then notify ACRWC's Wastewater Treatment Plant's Control Room at 780 416 9967), and
 - b. the owner of the premises where the spill release occurred, and
 - c. any other person whom the person reporting knows or ought to know may be directly affected by the spill release.
- (b) Provide a detailed report on the spill to the applicable Member Municipality's Utility Department and to ACRWC via email: discharge@acrwc.ab.ca, within five working days after the spill, containing the following information to the best of his or her knowledge:
 - (i) Location where spill occurred;
 - (ii) Name and telephone number of the person who reported the spill and the location and time where and when they can be contacted;
 - (iii) Date and time of spill;
 - (iv) Material spilled;
 - (v) Characteristics and composition of material spilled;
 - (vi) Volume of material spilled;
 - (vii) Duration of spill event;
 - (viii) Work completed and any work still in progress in the mitigation of the spill;
 - (ix) Preventive actions being taken to ensure a similar spill does not occur again; and
 - (x) Copies of applicable spill prevention and spill response plans.
- (c) The person responsible for the spill and the person having the charge, management and control of the spill shall do everything reasonably possible to contain the spill, protect the health and safety of citizens, minimize damage to property, protect the environment, clean up the spill and contaminated residue and restore the affected area to its condition prior to the spill.
- (d) Nothing in this Bylaw relieves any persons from complying with any notification or reporting provisions of:
 - (i) Other government agencies, including federal and provincial agencies, as required and appropriate for the material and circumstances of the spill; or,
 - (ii) Any other Bylaw of the Member Municipality.
- (e) The Member Municipality may invoice the person responsible for the spill to recover costs of time, materials and services arising as a result of the spill. The person responsible for the spill shall pay the costs invoiced.
- (f) ACRWC may require the person responsible for the spill to prepare and submit a spill contingency plan to ACRWC to indicate how risk of future incidents will be reduced and how future incidents will be addressed.

11. AUTHORITY OF ACRWC AND/OR MEMBER MUNICIPALITY TO INVESTIGATE

- (1) ACRWC, together with, or when designated by, its Member Municipality, has the authority to carry out any inspection reasonably required to ensure compliance with this bylaw, including but not limited to:
 - (a) Inspecting, observing, sampling and measuring the flow in any private
 - (i) sewer,
 - (ii) wastewater disposal system, and
 - (iii) flow monitoring point;
 - (b) Take samples of wastewater, storm water, clear-water waste and subsurface water being released from the premises or flowing within a private drainage system;
 - (c) Perform on-site testing of the wastewater, storm water, clear-water waste and subsurface water within or being released from private drainage systems, pretreatment facilities and storm water management facilities;
 - (d) Collect and analyze samples of hauled wastewater coming to a discharge location into the wastewater works;
 - (e) Make inspections of the types and quantities of chemicals being handled or used on the premises in relation to possible release to the wastewater works;
 - (f) Require information from any person concerning a matter;
 - (g) Inspect and copy documents or remove documents from premises to make copies;
 - (h) Inspect chemical storage areas and spill containment facilities and request Safety Data Sheets (SDS) for materials stored or used on site;
 - (i) Inspect the premises where a release of prohibited or restricted wastes or of water containing prohibited or restricted wastes has been made or is suspected of having been made, and to sample any or all matter that could reasonably have been part of the release.
- (2) No person shall hinder or prevent ACRWC and/or the Member Municipality from carrying out any of their powers or duties.

12. AUTHORITY OF ~~GENERAL MANAGER~~ CHIEF EXECUTIVE OFFICER

- (1) Notwithstanding the requirements of this Bylaw, the ~~General Manager~~ Chief Executive Officer of ACRWC may prohibit or set discharge concentrations and/or limit the loading rate for any other material or substance not included in the Bylaw schedules where required to protect wastewater works or processes, meet effluent standards or other legislated requirements, or control biosolids quality.

13. DISCONNECTION OF SEWER

- (1) Where wastewater which:
 - (a) Is hazardous or creates an immediate danger to any person;
 - (b) Endangers or interferes with the operation of the wastewater works and/or the wastewater treatment processes; or

(c) Causes or is capable of causing an adverse effect;

is discharged to the wastewater works, the ACRWC may require the Member Municipality, in addition to any other remedy available, to disconnect, plug or seal off the sewer discharging the unacceptable wastewater into the wastewater works or take such other action as is necessary to prevent such wastewater from entering the wastewater works.

- (2) The member municipality may be required to prevent the wastewater from being discharged into the wastewater works until evidence satisfactory to ACRWC has been provided confirming that no further discharge of hazardous wastewater will be made to the wastewater works.
- (3) Where ACRWC takes action pursuant to subsection 13(1), the Member Municipality may by notice in writing advise the owner or occupier of the premises from which the wastewater was being discharged, of the cost of taking such action and the owner or occupier, as the case may be, shall forthwith reimburse the Member Municipality for all such costs which were incurred.

14. ACCESS TO INFORMATION

- (1) All information submitted to and collected by ACRWC that is contained in plan summaries, reports, surveys, monitoring and inspection and sampling activities will, except as otherwise provided in this section, be available for disclosure to the public in accordance with the Freedom of Information and Protection of Privacy Act.
- (2) In the event that any person in submitting information to the ACRWC, as required under this article, where such information is confidential or proprietary or otherwise, may be exempt from disclosure under the Freedom of Information and Protection of Privacy Act, the person submitting the information shall so identify that information upon its submission to ACRWC and where such information is exempt from disclosure, ACRWC shall comply with the requirements of the *Freedom of Information and Protection of Privacy Act*.

15. MONITORING ACCESS POINTS

- (1) The owner or operator of industrial, commercial or institutional premises shall install and maintain in good repair in each private sewer connection a suitable monitoring access point to allow observation, sampling and flow measurement of the wastewater, uncontaminated water or storm water therein, provided that, where installation of a monitoring access point is not possible, an alternative device or facility may be substituted with the prior written approval of ACRWC:
 - (a) when the sewer connection is new;
 - (b) when the premises is redeveloped; and
 - (c) when required to do so by ACRWC and the Member Municipality.
- (2) The monitoring access point or alternative device or facility, such as a sampling port, shall be located on the industrial, commercial or institutional premises, as close to the property line as possible, unless ACRWC and the applicable member municipality have given prior written approval for a different location.

- (3) Each monitoring access point, alternative device or facility installed shall be designed and constructed in accordance with good engineering practice and the requirements of ACRWC and the Member Municipality, and shall be constructed and maintained by the owner or operator of the premises at his or her expense.
- (4) The owner or operator of an industrial, commercial or institutional premises shall at all times ensure that every monitoring access point, alternative device or facility installed as required by this bylaw is accessible to ACRWC and the Member Municipality for the purposes of observing, sampling and flow measurement of the wastewater, uncontaminated water or storm water therein.

16. OVERSTRENGTH SURCHARGE

- (1) ACRWC may assess Overstrength and Additional Overstrength Surcharges for wastewater discharges that exceed the limits of treatable parameters set out in Schedule 'C'.
- (2) Overstrength and Additional Overstrength Surcharges are assessed to the Member Municipality where the Wastewater discharge originates.
- (3) Testing of the wastewater being discharged into the sanitary sewer to determine Overstrength Surcharges shall be conducted by ACRWC and/or the Member Municipality, or by the discharger to the satisfaction of ACRWC that a representative sample is obtained, using automated sampling devices or in accordance with the following manual sampling protocol:
 - (a) Samples from the wastewater produced at a location will be collected each day for a minimum of two days;
 - (b) A minimum of four grab samples of equal volume shall be taken each day, such samples to be taken at least one hour apart;
 - (c) The analysis shall be conducted on a composite sample made of each day's grab samples;
 - (d) The respective results of these tests for each of the days on which samples are taken, shall be averaged to determine the characteristics and concentration of the effluent being discharged into the wastewater system.
- (4) The Overstrength and Additional Overstrength Surcharge Rates will be reviewed and adjusted accordingly from time to time as determined by ACRWC.

17. COMPLIANCE PROGRAMS

- (1) ACRWC may require an industry to apply for, and then issue, a Wastewater Discharge Permit to discharge wastewater to the Wastewater Works that does not comply with Schedule 'A' and/or 'B' of this bylaw. The Industry shall be entitled to make non-complying discharges in the amount and only to the extent set out in the permit.
- (2) As a term set out in the Wastewater Discharge Permit, ACRWC may require an industry to submit a Compliance Program setting out activities to be undertaken by the industry that would result in the prevention or reduction and control of the discharge or deposit of matter and/or uncontaminated water, ground water or storm water from the industry's

premises into municipal sewer connections or private sewer connections to any sanitary sewer. This may include, but is not limited to planning, design and construction or installation of facilities or works needed to implement the approved Compliance Program.

- (3) Each Compliance Program shall include the following :
- (a) A description of the processes at the premises which produce discharges that do not comply with the requirements of this Bylaw.
 - (b) A description of those processes at the premises which are to be the subject of the Compliance Program.
 - (c) A list of non-complying pollutants present at the premises at any stage of the operations at the premises.
 - (d) A description setting out the types, quantities and concentrations of all non-complying pollutants discharged, directly or indirectly, to a sewer.
 - (e) A description of current wastewater reduction, recycling, wastewater treatment and compliance activities at the premises with respect to discharges to a sewer from the premises.
 - (f) A description of compliance options for non-complying pollutants and wastewater discharge and an evaluation of those options.
 - (g) A list of possible targets and timeframes (in compliance with any Wastewater Discharge Permit that may have been issued to the discharger) to reduce or eliminate the discharge of non-complying matter to the wastewater works.
 - (h) A declaration from an authorized person that the content of the Compliance Program is,
to the best of that person's knowledge, true, accurate and complete.
- (4) Every proposed Compliance Program shall be for a specified length of time during which pretreatment facilities or other measures are to be installed or implemented and shall be specific as to the remedial actions to be implemented by the industry, the dates of commencement and completion of the activity and the materials or other characteristics of the matter to which it relates. The final activity completion date shall not be later than the final compliance date in the Compliance Program.
- (5) Industries which are required to submit a Compliance Program shall also submit a Compliance Program progress report to ACRWC within 14 days after the scheduled completion date of each activity listed in the Compliance Program.
- (6) ACRWC may terminate any proposed Wastewater Discharge Permit related to a Compliance Program by written notice at any time to the Industry in the event that the Industry fails or neglects to carry out or diligently pursue the activities required of it under its Compliance Program.
- (7) In the event that an Industry submitting a Compliance Program is not sent written notice from ACRWC that its Compliance Program is not approved by ACRWC within 90 days of the Industry delivering a copy of the Compliance Program to ACRWC, the Compliance Program shall be deemed to have been approved by ACRWC.
- (8) Where an Industry receives notice from ACRWC that its Compliance Program has not been approved, ACRWC shall provide the Industry with a date by which it must submit an amended Compliance Program to ACRWC for approval in accordance with this article.

- (9) In the event that a Compliance Program resubmitted to ACRWC in accordance with Subsection 17 (8) of this section does not comply with the requirements of this bylaw, ACRWC shall so notify the Industry, within 30 days of delivery to ACRWC of the amended Compliance Program, and the Industry shall be in contravention of Subsection 17 (1) and shall continue to be in contravention of this section until such time as ACRWC approves an amended Compliance Program resubmitted by the Industry, in accordance with this section.
- (10) When required by ACRWC, an Industry which has received approval from ACRWC for its Compliance Program shall submit a revised and updated Compliance Program for the approval of ACRWC within the timeframe specified by ACRWC. Such revised and updated Compliance Program shall, in addition to the requirements otherwise set out in this section, detail and evaluate the progress of the Industry to accomplish the objectives set out in its Compliance Program.
- (11) A copy of the Compliance Program shall be kept at all times at the premises in respect to which it was prepared and shall be available for inspection by ACRWC and/or the Member Municipality at any time.

18. BEST MANAGEMENT PRACTICES & CODES OF PRACTICE

- (1) The ~~General Manager~~Chief Executive Officer is authorized to approve the adoption of Best Management Practices which include Codes of Practice. The provisions of this bylaw requiring compliance with Best Management Practices, including Codes of Practice apply to all Best Management Practices approved by the ~~General Manager~~Chief Executive Officer
- (2) ACRWC has adopted one or more Best Management Practices which include Codes of Practice which applies to the Designated Sector Operations, as outlined in ACRWC's Code of Practice Registration Form for Designated Sector Operations, available on ACRWC's website at www.acrwc.ab.ca.
- (3) A code of practice does not apply to a discharging operation that is subject to a Wastewater Discharge Permit, unless otherwise specified in the Wastewater Discharge Permit.
- (4) A code of practice does not apply to the discharge of domestic wastewater.
- (5) Nothing in a code of practice relieves a person discharging wastewater from complying with this bylaw, a Wastewater Discharge Permit or any other applicable enactment.
- (6) ACRWC may require a discharging operation to obtain a Wastewater Discharge Permit if considered necessary by ACRWC due to circumstances not covered by a code of practice.
- (7) As a condition of discharge of wastewater into a sewer connected to a Wastewater Works, an operator of a discharging operation listed within ACRWC's Code of Practice Registration Form for Designated Sector Operations must submit to ACRWC a completed Code of Practice registration form:
 - (a) Within 90 days of the date of adoption of the applicable code of practice in the case of a discharging operation in existence on the adoption date; or
 - (b) In all other cases, within 30 days of the discharging operation commencing the discharge of wastewater into a sewer connected to a Wastewater Works.

- (8) An operator must report to ACRWC any change in the ownership, name, location, contact person, telephone number, or email address of a discharging operation registered under a code of practice within 30 days of the change by submitting a completed code of practice registration form referred to in Section 18.2 showing the changes.
- (9) An operator must within 30 days of any change in the discharging operation registered under a code of practice resulting in the operation no longer meeting the definition applicable to that type of discharging operation report the change by submitting a completed code of practice registration form referred to in Section 18.2 describing the changes.
- (10) If a code of practice establishes a requirement in relation to a specific discharging operation which differs from a provision in this bylaw, the requirement in the code of practice prevails.

19. MEMBER MUNICIPALITY OBLIGATIONS

- (1) The Wastewater to be treated by ACRWC is delivered to ACRWC’s Wastewater Works by the Member Municipalities.
- (2) The Member Municipalities will reflect the requirements and prohibitions of this ACRWC Bylaw in the Member Municipality’s utility or wastewater bylaws.
- (3) Each Member Municipality shall take action to enforce their utility and wastewater bylaws should a person in that Member Municipality breach the municipal bylaw, resulting in a breach or contravention of the ACRWC’s Bylaw.
- (4) Each Member Municipality shall include an “Offences” section (or similar) detailing penalties for contraventions of their bylaw such as violation notices to comply, violation tickets, fines, discharge abatement orders and court order.
- (5) If a Member Municipality fails to take reasonable steps to enforce that municipality’s utility and wastewater bylaws such that a breach or contravention of the ACRWC’s Bylaw #8 occurs, the Member Municipality shall pay to ACRWC any increased fees or pre-estimate of damages as approved by the Board of ACRWC.

ENACTED at a meeting of the Board of Directors of THE ALBERTA CAPITAL REGION WASTEWATER COMMISSION at a meeting duly held on the 18th day of March AD, 2016.

~~Chairman~~Chairperson

~~General Manager~~Chief Executive Officer

SCHEDULE 'A' PROHIBITED WASTES

No person shall discharge directly or indirectly or deposit or cause or permit the discharge or deposit of wastewater into a sanitary sewer or municipal sewer connection or private sewer connection, to any wastewater works in circumstances where:

(1) To do so may cause or result in:

- (a) A health or safety hazard to a person authorized by the ACRWC or a Member Municipality to inspect, operate, maintain, repair or otherwise work on a wastewater works;
- (b) An offence under any applicable federal or provincial legislation, as amended from time to time, or any regulation made thereunder from time to time;
- (c) Wastewater sludge from the wastewater treatment facility to which wastewater discharges, either directly or indirectly, to fail to meet the objectives and criteria as listed in any applicable federal or provincial legislation, as amended from time to time;
- (d) Interference with the operation or maintenance of a wastewater works, or which may impair or interfere with any wastewater treatment process;
- (e) A hazard to any person, animal, property or vegetation;
- (f) An offensive odour emanating from wastewater works, and without limiting the generality of the foregoing, wastewater containing hydrogen sulphide, carbon disulphide, other reduced sulphur compounds, amines or ammonia in such quantity as may cause an offensive odour;
- (g) Damage to wastewater works;
- (h) An obstruction or restriction to the flow in wastewater works.

(2) The wastewater has two or more separate liquid layers.

(3) The wastewater contains:

- (a) Hazardous substances;
- (b) Combustible liquid;
- (c) Biomedical waste, including but not limited to the following categories: human anatomical waste, animal waste, untreated microbiological waste, waste sharps and untreated human blood and body fluids known to contain viruses and agents listed in "Risk Group 4" as defined in "Laboratory Biosafety Guidelines" published by Health Canada, dated 2004, as amended.
- (d) Specified risk material for bovine spongiform encephalopathy as defined in the federal Fertilizers Regulations (C.R.C., c. 666), as amended from time to time, including material from the skull, brain, trigeminal ganglia, eyes, tonsils, spinal cord and dorsal root ganglia of cattle aged 30 months or older, or material from the distal ileum of cattle of all ages.
- (e) Dyes or colouring materials which may or could pass through a wastewater works and discolour the wastewater works effluent;
- (f) Fuel;

- (g) Ignitable waste.
- (h) Pathological waste.
- (i) PCBs.
- (j) Pesticides which are not otherwise regulated in this Bylaw.
- (k) Reactive waste.
- (l) Toxic substances which are not otherwise regulated in this Bylaw.
- (m) Waste radioactive substances in excess of concentrations greater than those specified for release to the environment under the *Nuclear Safety and Control Act* and Regulations or amended versions thereof.
- (n) Solid or viscous substances in quantities or of such size to be capable of causing obstruction to the flow in a wastewater works, including but not limited to ashes, bones, cinders, sand, mud, soil, straw, shaving, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, animal parts or tissues, and paunch manure.

(4) The wastewater contains a concentration, expressed in milligrams per litre, in excess of any one or more of the limits in Schedule 'B' of this Bylaw, unless:

- (a) The discharge is in accordance with a valid Wastewater Discharge Permit;
- (b) The discharge is authorized in a Code of Practice approved by ACRWC; and
- (c) All requirements of Section 6 of the Bylaw, Additional Requirements, have been fully satisfied.

SCHEDULE 'B' RESTRICTED WASTES – SANITARY SEWER DISCHARGES

(1)

Table A - CONVENTIONAL CONTAMINANTS

Substance	Concentration Limit– [mg/L, except as noted]
Biochemical Oxygen Demand	10,000
Chemical Oxygen Demand	20,000
Nitrogen, Total Kjeldahl	500
Oil and Grease, Total – Animal and Vegetable + Mineral and Synthetic/Petroleum Hydrocarbons	500
Phosphorus, total	200
Suspended Solids, Total	5,000

Table B - ORGANIC CONTAMINANTS

Substance	Concentration Limit– [mg/L]
Benzene	0.5
Ethylbenzene	0.5
Oil and Grease – Mineral and Synthetic/Petroleum Hydrocarbons	100
Phenols, Total (or phenolic compounds)	1.0
Toluene	0.5
Xylene	0.5

Table C - INORGANIC CONTAMINANTS

Substance	Concentration Limit– [mg/L]
Arsenic (As)	1.0
Cadmium (Cd)	0.10
Chlorine, Total (Cl ₂)	5.0
Chromium (Hexavalent) (Cr ⁺⁶)	2.0
Chromium, Total (Cr)	4.0
Cobalt (Co)	5.0
Copper (Cu)	2.0
Cyanide (CN)	2.0
Lead (Pb)	1.0
Mercury (Hg)	0.10
Molybdenum (Mo)	5.0
Nickel (Ni)	4.0
Selenium (Se)	1.0
Silver (Ag)	5.0
Sulphide (S ⁻)	3.0
Thallium (Tl)	1.0
Zinc (Zn)	2.0

Table D - PHYSICAL PARAMETERS

Parameter	Limit
Flashpoint	Not ≤60.5° C
Lower Explosive Limit (LEL) in headspace	10% of the LEL
pH	6.0 – 11.5 (unitless)
Temperature	60° C

- (2) Concentrations that do not exceed the constituent concentrations limits listed in Schedule 'B' are permitted for discharge, however may be subject to an Overstrength Surcharge outlined in Schedule 'C'.

SCHEDULE 'C' WASTEWATER OVERSTRENGTH LIMITS

	Column A	Column B
Substance	Overstrength Surcharge Concentration Limits, mg/L	Additional Overstrength Concentration Limits, mg/L
Biochemical Oxygen Demand (BOD)	300	3000
Chemical Oxygen Demand (COD)	600	6000
Nitrogen, Total Kjeldahl (TKN)	50	200
Oil and Grease, Total (O&G) – Animal and Vegetable + Mineral and Synthetic/Petroleum Hydrocarbons	100	400
Phosphorus, Total (TP)	10	75
Suspended Solids, Total (TSS)	300	3000

QUALITY OF WASTEWATER BYLAW
BEING A BY-LAW OF THE BOARD OF DIRECTORS OF THE ALBERTA CAPITAL REGION
WASTEWATER COMMISSION GOVERNING THE QUALITY OF THE WASTEWATER ACCEPTED BY
THE COMMISSION

WHEREAS THE ALBERTA CAPITAL REGION WASTEWATER COMMISSION (hereinafter be referred to as ACRWC) has been established by the Lieutenant Governor in Council under Alberta Regulation 129/85 made pursuant to Part 15.1 of the Municipal Government Act (Alta); RSA 2000, c. M-26 and

WHEREAS the Board of Directors of ACRWC has been duly appointed pursuant to s. 602.04(3)(b) of the said Act and the Board of Directors now wishes to make a By-Law pursuant to s. 602.07(3) of the said Act governing the quality of wastewater accepted by ACRWC;

NOW THEREFORE BE IT ENACTED as a By-Law of the Board of Directors of ACRWC as follows:

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INTRODUCTION

This Bylaw outlines controls for the discharge of pollutants to the sewer system. The objectives of the Bylaw are to:

- Protect the sewer system from corrosion, other damage and obstruction.
- Protect the wastewater treatment plant process from upset.
- Protect the public, ACRWC's and municipal workers and property from hazardous conditions (such as explosions).
- Assist optimum wastewater system efficiency by preventing uncontaminated water from entering the system
- Protect wastewater sludge and biosolids quality.
- Protect the environment from contaminants that are not removed by ACRWC's Wastewater Treatment Plant or EPCOR's Gold Bar Wastewater Treatment Plant.
- Assist ACRWC and its Member Municipalities in maintaining compliance with the operating conditions established by the province of Alberta

1. DEFINITIONS

In this Bylaw:

- i. "ACCREDITED LABORATORY" shall mean any laboratory accredited by an authorized accreditation body in accordance with a standard based on "*CAN-P-1585: Requirements for the Accreditation of Environmental Testing Laboratories*" established by the Standards Council of Canada, as amended, or "*ISO/IEC/EN 17025: General Requirements for Competence of Calibration and Testing Laboratories*" established by the International Organization for Standardization, as amended.
- ii. "ACRWC" shall mean Alberta Capital Region Wastewater Commission
- iii. "ADDITIONAL OVERSTRENGTH SURCHARGE" shall mean the rate per kilogram per cubic meter of water consumed and charged to a user who releases wastewater to the wastewater works that exceeds one or more constituent concentrations set out in Column B of Schedule "C".
- iv. "BEST MANAGEMENT PRACTICES (BMP)" shall mean an integrated plan to control and reduce the release of restricted and prohibited waste into the wastewater works to a practicable extent, through methods including physical controls, pretreatment processes, operational procedures and staff training.
- v. "BIOCHEMICAL OXYGEN DEMAND (BOD)" shall mean the five-day BOD which is the determination of the molecular oxygen utilized during a five-day incubation period for the biochemical degradation of organic material (carbonaceous demand), and the oxygen used to oxidize inorganic material such as sulphides and ferrous iron, and the amount of oxygen used to oxidize reduced forms of nitrogen (nitrogenous demand) as determined by the appropriate procedure in Standard Methods.
- vi. "BIOMEDICAL WASTE" shall mean biomedical waste as defined in the Province of Alberta's

- Waste Control regulation, as amended from time to time.
- vii. "BLOWDOWN WATER" shall mean recirculating water that is discharged from a cooling or heating water system for the purpose of controlling the level of water in the system or for the purpose of discharging from the system materials contained in the system, the further build-up of which would or might impair the operation of the system.
 - viii. "CHEMICAL OXYGEN DEMAND or (COD)" shall mean a measure of the capacity of water to consume oxygen as a result of oxidation of inorganic chemicals and decomposition of organic matter.
 - ix. "CHIEF EXECUTIVE OFFICER OR (CEO)" shall mean the CEO of the Commission appointed by the Board of Directors, pursuant to Section 5 of the Being Bylaws of the ACRWC.
 - x. "CLEAR-WATER WASTE" shall mean includes non-contact cooling water and other water that has not come into contact with wastewater contaminant sources.
 - xi. "CODE OF PRACTICE" shall mean a set of practices applicable to specific industrial, commercial or institutional sector operations; a code of practice identifies mandatory procedures, equipment, training or other provisions required as a condition of wastewater discharge into the wastewater works system by the specified sector discharger. A code of practice may be included in approved Best Management Practices.
 - xii. "COMBUSTIBLE LIQUID" – shall mean a liquid that has a flash point not less than 37.8 degrees Celsius and not greater than 93.3 degrees Celsius.
 - xiii. "COMPLIANCE PROGRAM" shall mean the necessary steps undertaken by a discharger to bring wastewater discharged into the wastewater works into compliance with the terms and conditions of this Bylaw or related permit. Compliance programs are applicable to existing dischargers only; new discharges must fully comply with the requirements of this bylaw.
 - xiv. "COMPOSITE SAMPLE" shall mean a volume of wastewater, storm water, uncontaminated water, clear- water or effluent made up of four or more grab samples that have been combined automatically or manually and taken at intervals during a sampling period.
 - xv. "CONNECTION or DRAIN" shall mean that part or those parts of any pipe or system of pipes leading directly to a wastewater works.
 - xvi. "COOLING WATER" shall mean water that is used in a process for the purpose of removing heat and that has not, by design, come into contact with any raw material, intermediate product, waste product or finished product, but does not include blowdown water.
 - xvii. "DENTAL AMALGAM" shall mean a dental filling material consisting of an amalgam of mercury, silver and other materials such as copper, tin or zinc.
 - xviii. "DENTAL AMALGAM SEPARATOR" shall mean any technology, or combination of

technologies, designed to separate dental amalgam particles from dental operation wastewater.

- xix. "DESIGNATED SECTOR OPERATIONS" shall mean industrial, commercial or institutional sectors required to adopt Codes of Practice approved by ACRWC.
- xx. "DESIGNATED SEWER OFFICER" shall mean the person appointed by the Municipality, and his or her successors or his or her duly authorized representative. (Note the Designated Sewer Officer may hold the position of Chief Executive Officer, City Manager, Inspector or other position suitable to the organization of the Municipality.)
- xxi. "DOMESTIC WASTEWATER" shall mean sanitary waste produced on residential premises, or sanitary waste and wastewater from sanitary facilities produced on a non-residential property.
- xxii. "EFFLUENT" shall mean liquid flowing out of a facility or premises into a sewer.
- xxiii. "FLASHPOINT" shall mean the temperature at which enough vapour collects on the surface of a liquid to become flammable. The lower the flashpoint, the more flammable the material is.
- xxiv. "FLOW MONITORING POINT" shall mean an access place to the private sewer connection for the purpose of:
 - A. Measuring the rate or volume of wastewater, storm water, clear water waste or subsurface water released from the premises; and
 - B. Collecting representative samples of the wastewater, storm water, clear water waste or subsurface water released from the premises.
- xxv. "FUELS" shall mean alcohol, gasoline, naphtha, diesel fuel, fuel oil or any other ignitable substance intended for use as a fuel.
- xxvi. "GRAB SAMPLE" shall mean a volume of wastewater, storm water, uncontaminated water or effluent which is collected over a period not exceeding 15 minutes.
- xxvii. "GROUND WATER" shall mean water beneath the earth's surface accumulating as a result of seepage.
- xxviii. "HAULED WASTE" shall mean any industrial waste which is transported to and deposited into any location in the wastewater works, excluding hauled wastewater.
- xxix. "HAULED WASTEWATER" shall mean waste removed from a collection system, including a cesspool, a septic tank system, a privy vault or privy pit, a chemical toilet, a portable toilet or a wastewater holding tank.
- xxx. "HAZARDOUS SUBSTANCES" shall mean

A. Any substance or mixture of substances, other than a pesticide, that exhibits characteristics of flammability, corrosivity, reactivity or toxicity; and

B. Any substance that is designated as a hazardous substance within the meaning of the Province of Alberta's Waste Control Regulation 192/1996 as amended from time to time.

- xxxi. "HAZARDOUS WASTE" shall mean any Hazardous Substance disposed of as waste.
- xxxii. "IGNITABLE WASTE" shall mean a substance that:
- A. Is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 93 degrees Celsius, as determined by the Tag Closed Cup Tester (ASTM D-56-97a), the Setaflash Closed Cup Tester (ASTM D-3828-97 or ASTM D-3278-96e1), the Pensky-Martens Closed Cup Tester (ASTM D-93-97), or as determined by an equivalent test method;
 - B. Is a solid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a danger;
 - C. Is an ignitable compressed gas as defined under federal or provincial regulation as appropriate for the Member Municipality, as amended; or
 - D. Is an oxidizing substance as defined under federal or provincial regulation as appropriate for the Member Municipality, as amended.
- xxxiii. "INDUSTRIAL" shall mean of or pertaining to manufacturing, commerce, trade, business or institutions as distinguished from domestic or residential.
- xxxiv. "INDUSTRY" shall mean any owner or operator of industrial, commercial or institutional premises from which there is a discharge of any matter directly or indirectly into a sanitary sewer, combined sewer or storm sewer of a Member Municipality, the City of Edmonton, or ACRWC.
- xxxv. "INSPECTOR" shall mean a person authorized by ACRWC and/or Member Municipality to carry out observations and inspections and take samples as prescribed by this bylaw.
- xxxvi. "INSTITUTION" shall mean a facility, usually owned by a government, operated for public purposes, such as schools, universities, medical facilities (hospitals, nursing stations, nursing homes), museums, prisons, government offices, military bases. Some of these facilities produce non-residential discharges to sewers from, for example, laboratories, chemical use, or industrial processes.
- xxxvii. "LOWER EXPLOSIVE LIMIT or (LEL)" shall mean the concentration of a gas or vapour in the air. Below the LEL, there is not enough vapour in the air to fuel a fire.

- xxxviii. "MATTER" shall mean any solid, liquid or gas.
- xxxix. "MEMBER MUNICIPALITIES" shall mean those municipalities who are members of ACRWC.
 - xl. "MONITORING ACCESS POINT" shall mean an access point, such as a chamber, in a private sewer connection to allow for observation, sampling and flow measurement of the wastewater, uncontaminated water or storm water therein.
 - xli. "MUNICIPAL SEWER CONNECTION" shall mean that part of any drain leading from the private sewer connection and connected to the municipal sewer and located within the limits of the public road allowance, or other public lands or public land interests held for sewerage purposes.
 - xlii. "MULTIPLE MUNICIPAL SEWER CONNECTION" shall mean a municipal sewer connection providing service to two or more premises.
 - xlili. "NON-CONTACT COOLING WATER" shall mean water which is used to reduce temperature for the purpose of cooling and which does not come into direct contact with any raw material, intermediate or finished product other than heat.
 - xliv. "NON-DOMESTIC WASTEWATER" shall mean all Wastewater except Domestic Wastewater, Uncontaminated Water, and Septic Tank Waste.
 - xlv. "OIL AND GREASE" shall mean -Hexane extractable matter as described in Standard Methods.
 - xlvi. "OIL – WATER SEPARATOR" shall mean a three-stage oil-water separator that meets the Standard for Oil- Water Separators (ULC-S656-14) prepared by Underwriters' Laboratories of Canada or the equivalent oil-water separation technology able to achieve an effluent quality of 100 mg/L of oil and grease (mineral-synthetic/hydrocarbons) or less.
 - xlvii. "OVERSTRENGTH" shall mean wastewater released to a sewer that is higher in concentration for one or more constituent concentrations set out in Column A of Schedule "C" of this Bylaw.
 - xlviii. "OVERSTRENGTH SURCHARGE" shall mean the rate per kilogram per cubic meter of water consumed and charged to a user who releases wastewater to the sewer that exceeds one or more constituent concentrations set out in Column A of Schedule 'C'.
 - xliv. "PATHOLOGICAL WASTE" shall mean pathological waste within the meaning of the Canadian Human Pathogens and Toxins Act, as amended.
 - I. "PCBs" shall mean any monochlorinated or polychlorinated biphenyl or any mixture of them or mixture that contains one or more of them.
 - li. "PERSON" shall mean an individual, association, partnership, corporation, municipality or

an agent or employee of such a person.

- lii. "PESTICIDE" shall mean a pesticide regulated under the Canadian Pests Control Products Act and the Province of Alberta's Pesticide (Ministerial) Regulation and Pesticide Sales, Handling, Use and Application Regulation, all as amended.
- liii. "PRETREATMENT" – shall mean the reduction, elimination or alteration of matter in wastewater prior to discharge into the wastewater works. This reduction or alteration can be obtained by physical, chemical, or biological processes, through pollution prevention, or by other means, except by diluting the concentration of the pollutants.
- liv. "PRETREATMENT PROCESSES" shall mean one or more treatment processes or devices designed to remove sufficient matter from wastewater discharged into the municipal sewer connection to enable compliance with effluent limits established in this Bylaw. Pretreatment processes prevent or reduce and control the discharge or deposit of matter from the discharger's premises into the municipal sewer connection.
- lv. "PRIVATE SEWER CONNECTION/PRIVATE DRAINAGE SYSTEM" shall mean that part of any drain or system of drains, including drains or subsurface drainage pipe for surface or subsurface drainage of the land in or adjacent to a building, lying within the limits of the private lands and leading to a municipal sewer connection, the maintenance of which is the property owner's responsibility.
- lvi. "PROHIBITED WASTE" shall mean prohibited waste as defined in Schedule 'A' of this Bylaw.
- lvii. "REACTIVE WASTE" shall mean a substance that:
 - A. Is normally unstable and readily undergoes violent changes without detonating;
 - B. Reacts violently with water;
 - C. Forms potentially explosive mixtures with water;
 - D. When mixed with water, generates toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment;
 - E. Is a cyanide or sulphide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment;
 - F. Is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;
 - G. Is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or
 - H. Is an explosive as defined in the regulations under the Canadian Explosives Act, as amended.
- lviii. "RESTRICTED WASTE" shall mean restricted waste as defined in Schedule 'B' of this Bylaw.
- lix. "SAMPLING PORT" shall mean a valve, tap, or similar device on equipment, a drain pipe or at another suitable location, to allow for sampling, consistent with technical guidelines that

the ACRWC and/or Member Municipality may establish from time to time.

- lx. "SANITARY SEWER" shall mean a sewer for the collection and transmission of domestic or industrial wastewater or any combination thereof.
- lxi. "SEPTIC TANK WASTE" shall mean any Waste extracted from a cesspool, septic tank, sewage holding tank, seepage pit, interceptor or other containment for human excretion and wastes.
- lxii. "SEWER" shall mean a pipe, conduit, drain, open channel or ditch for the collection and transmission of wastewater, storm water or uncontaminated water, or any combination thereof.
- lxiii. "SPILL" shall mean a direct or indirect discharge into the wastewater works, storm sewer or the natural environment which is abnormal in quantity or quality in light of all the circumstances of the discharge.
- lxiv. "STORM SEWER" shall mean a sewer for the collection and transmission of uncontaminated water, storm water, drainage from land or from a watercourse or any combination.
- lxv. "STORM WATER" shall mean the water running off the surface of a drainage area during and immediately after a period of rain or snow melt.
- lxvi. "SUBSURFACE DRAINAGE PIPE" shall mean a pipe that is installed underground to intercept and convey subsurface water, and includes foundation drain pipes.
- lxvii. "SUBSURFACE WATER" shall mean groundwater including foundation drain water.
- lxviii. "STANDARD METHODS" shall mean a procedure or method set out in *Standard Methods for the Examination of Water and Wastewater* published jointly by the American Public Health Association, American Water Works Association and the Water Environment Federation, recent or latest edition or approved in writing by ACRWC.
- lxix. "TOTAL SUSPENDED SOLIDS or (TSS)" shall mean insoluble matter in liquid that is removable by filtration, as determined by the appropriate procedure described in Standard Methods.
- lxx. "TOXIC SUBSTANCE" shall mean any substance defined as toxic under the *Canadian Environmental Protection Act 1999*, as amended from time to time and within the meaning of Alberta's Waste Control Regulation, as amended from time to time.
- lxxi. "UNCONTAMINATED WATER" shall mean water with a level of quality which is typical of potable water normally supplied by a Member Municipality.
- lxxii. "WASTE DISPOSAL SITE LEACHATE" shall mean the liquid containing dissolved or suspended contaminants which emanates from waste (solid waste or garbage) and is

produced by water percolating through waste or by liquid in waste.

- lxxiii. "WASTE RADIOACTIVE SUBSTANCES" shall mean substances defined in the federal *Nuclear Safety and Control Act* and the regulations passed thereunder, as amended.
- lxxiv. "WASTEWATER" shall mean the composite of water and water-carried wastes from residential, commercial, industrial or institutional premises or any other source.
- lxxv. "WASTEWATER SLUDGE" shall mean solid material recovered from the wastewater treatment process.
- lxxvi. "WASTEWATER TREATMENT FACILITY" shall mean any structure or thing used for the physical, chemical, biological or radiological treatment of wastewater, and includes sludge treatment, wastewater sludge storage and disposal facilities.
- lxxvii. "WASTEWATER DISCHARGE PERMIT" shall mean a permit issued by ACRWC which will govern the discharge of non-domestic waste and hauled wastewater into a sewer.
- lxxviii. "WASTEWATER WORKS" shall mean any works for the collection, transmission, treatment and disposal of wastewater, or any part of such works, but does not include plumbing or other works to which the applicable Building Code applies. Wastewater works, sanitary sewer and sewer in this Bylaw refer to the Works owned by ACRWC, those owned by the Member Municipalities, and those owned by the City of Edmonton which direct wastewater to ACRWC facilities pursuant to the Regional Exchange Agreement entered in 2008.
- lxxix. "WATERCOURSE" shall mean an open channel, ditch or depression, either natural or artificial, in which flow of water occurs either continuously or intermittently.

2. SANITARY SEWER REQUIREMENTS

- (1) No person shall release, or permit the release of, any matter into the sanitary sewer or wastewater works except:
 - (a) Domestic wastewater;
 - (b) Non-domestic wastewater that complies with the requirements of this Bylaw;
 - (c) Hauled wastewater, including septage, that complies with the requirements of this Bylaw, or where a Wastewater Discharge Permit has been issued by ACRWC;
 - (d) Storm water, Clear-water waste, Subsurface water or other matter where a Wastewater Discharge Permit has been issued by ACRWC.
- (2) No person shall release, or permit the release of, any prohibited substance listed in Schedule 'A' of this Bylaw into the wastewater works.
- (3) No person shall release, or permit the release of, any restricted substance which exceeds the respective concentrations listed in Schedule 'B' of this Bylaw into the wastewater works without a valid Wastewater Discharge Permit.
- (4) When required by ACRWC, non-domestic and hauled wastewater dischargers shall complete and submit an "**Abbreviated Wastewater Discharge Application**" (available on ACRWC

website: www.acrwc.ab.ca) to ACRWC.

- (5) When required by ACRWC, non-domestic and hauled wastewater dischargers shall complete and submit a **“Detailed Wastewater Discharge Application”** (available on ACRWC website: www.acrwc.ab.ca) to ACRWC.
- (6) When required by ACRWC, non-domestic and hauled wastewater dischargers shall not discharge to the wastewater works system until the discharger has obtained a **“Wastewater Discharge Permit”** from ACRWC.
- (7) ACRWC may issue, and amend, a Wastewater Discharge Permit to allow the discharge of non-domestic waste and hauled wastewater into a sewer upon such terms and conditions as ACRWC considers appropriate and, without limiting the generality of the foregoing, may in the Wastewater Discharge Permit:
 - (a) Place limits and restrictions on the quantity, composition, frequency and nature of the wastewater permitted to be discharged; and
 - (b) Require the holder of a Wastewater Discharge Permit to repair, alter, remove, add to, or construct new pretreatment facilities; and
 - (c) Provide that the Wastewater Discharge Permit will expire on a specified date, or upon the occurrence of a specified event.
- (8) ACRWC may issue a **Discharge Abatement Order** to a Member Municipality requiring the Member Municipality to:
 - (a) Require and direct a person within the boundary of that Member Municipality to alter the quantity, composition, duration and timing of the discharge or cease discharge of non-domestic waste or hauled wastewater to a sewer or wastewater facility;
 - (b) Comply with any terms or conditions that could be included in a Wastewater Discharge Permit; and
 - (c) Shut down all non-compliant releases.ACRWC may amend or cancel a Discharge Abatement Order.

3. PROHIBITION OF DILUTION

- (1) No person shall discharge directly or indirectly, or permit the discharge or deposit of wastewater into a sanitary sewer where water has been added to the discharge for the purposes of dilution to achieve compliance with Schedule ‘A’ or Schedule ‘B’ of this Bylaw.

4. SAMPLING

- (1) Where sampling is required for the purposes of determining the concentration of constituents in the wastewater, storm water or uncontaminated water, the sample may:
 - (a) Be collected manually or by using an automatic sampling device; and
 - (b) Contain additives for its preservation.
- (2) For the purpose of determining compliance with Schedules ‘A’ or ‘B’, discrete wastewater streams within premises may be sampled, at the discretion of ACRWC.
- (3) Any single grab sample may be used to determine compliance with Schedules ‘A’ and ‘B’.
- (4) All tests, measurements, analyses and examinations of wastewater, its characteristics or contents pursuant to this Bylaw shall be carried out in accordance with "Standard Methods" and be performed by an Accredited Laboratory for analysis of the particular substance(s)

using a method which is within the laboratory's scope of accreditation or to the satisfaction of ACRWC as agreed in writing prior to sample analysis.

5. SELF MONITORING BY DISCHARGER

- (1) The discharger shall complete any monitoring or sampling of any discharge to a wastewater works as required by ACRWC, and provide the results to ACRWC in the form specified by ACRWC.
- (2) The obligations set out in or arising out of 5(1) shall be completed at the expense of the discharger.

6. ADDITIONAL REQUIREMENTS

6.1 FOOD-RELATED GREASE INTERCEPTORS

- (1) Every owner or operator of a restaurant or other industrial, commercial or institutional premises where food is cooked, processed or prepared, for which the premises is connected directly or indirectly to a sanitary sewer, shall take all necessary measures to ensure that oil and grease are prevented from entering the sanitary sewer in excess of the provisions of this bylaw. Oil & Grease interceptors shall not discharge to storm sewers.
- (2) The owner or operator of the premises referred to in subsection 6.1(1) shall install, operate, and properly maintain an oil and grease interceptor in any piping system at its premises that connects directly or indirectly to a sewer. The oil and grease interceptors shall be installed in compliance with the most current requirements of the applicable Building Code and the National Plumbing Code of Canada, as amended.
- (3) All oil and grease interceptors shall be maintained in good working order according to the manufacturer's recommendations. The testing, maintenance and performance of the interceptor shall meet the requirements of CAN/CSA B-481. Traps should be cleaned before the thickness of the organic material and solids residuals is greater than twenty-five percent of the available volume; cleaning frequency should not be less than every four weeks. Maintenance requirements should be available at the workplace where the grease interceptor is installed. Maintenance and clean out shall be documented at the time it is performed.
- (4) A maintenance schedule and record of maintenance carried out shall be submitted to ACRWC upon request for each interceptor installed.
- (5) The owner or operator of the restaurant or other industrial, commercial or institutional premises where food is cooked, processed or prepared, shall, for two years, keep the records which document the maintenance and clean outs performed for interceptor clean-out and oil and grease disposal.

6.2 VEHICLE AND EQUIPMENT SERVICE OIL AND GREASE INTERCEPTORS

- (1) Every owner or operator of a vehicle or equipment service station, repair shop or garage or of an industrial, commercial or institutional premises or any other establishment where motor vehicles are repaired, lubricated or maintained and where the sanitary discharge is directly or indirectly connected to a sanitary sewer shall install an oil and grease interceptor designed to prevent motor oil and lubricating grease from passing into the sanitary sewer in excess of the provisions of this bylaw. Oil and Grease interceptors shall not discharge to storm sewers.
- (2) The owner or operator of the premises referred to in Subsection 6.2(1) shall install, operate, and properly maintain an oil and grease interceptor in any piping system at its premises that connects directly or indirectly to a sewer. The oil and grease interceptors shall be installed in compliance with the most current requirements of the applicable Building Code and be maintained as recommended by the Canadian Fuels Association (formerly the Canadian Petroleum Products Institute).
- (3) All oil and grease interceptors and separators shall be maintained in good working order and according to the manufacturer's recommendations and shall be inspected regularly to ensure performance is maintained to the manufacturer's specifications for performance and to ensure the surface oil and sediment levels do not exceed the recommended level. In the absence of manufacturer's recommendations, the floating oil and grease shall not accumulate in the final stage chamber of the oil and grease separator in excess of 5% of the wetted height and the settled solids shall not accumulate in the final stage chamber of the oil and grease separator in excess of 25% of the wetted height. Maintenance and clean out shall be documented at the time it is performed.
- (4) A maintenance schedule and record of maintenance shall be submitted to ACRWC upon request for each oil and grease interceptor installed.
- (5) The owner or operator of the premises as set out in Subsection 6.2(1), shall, for two years, keep the records which document the maintenance and clean outs performed for interceptor clean-out and oil and grease disposal.

6.3 SEDIMENT INTERCEPTORS

- (1) Every owner or operator of the premises from which sediment may directly or indirectly enter a sewer, including but not limited to premises using a ramp drain or area drain and vehicle wash establishments, shall take all necessary measures to ensure that such sediment is prevented from entering the drain or sewer in excess of the limits in this Bylaw.
- (2) All sediment interceptors shall be maintained in good working order according to manufacturer's recommendations and shall be inspected regularly to ensure performance is maintained to the manufacturer's specifications for performance. In the absence of manufacturer's recommendations, the settled solids shall not accumulate in the final stage chamber of the sediment interceptor in excess of 25% of the wetted height. Maintenance and clean out shall be documented at the time it is performed.
- (3) The owner or operator of a premises as referred to in Subsection 6.3(1), shall, for 2 years, keep the records which document interceptor clean-out and sediment disposal.
- (4) A maintenance schedule and record of maintenance shall be submitted to ACRWC upon

request for each sediment interceptor installed.

6.4 DENTAL WASTE AMALGAM SEPARATOR

- (1) Every owner or operator of the premises from which dental amalgam may be discharged, which waste may directly or indirectly enter a sewer, shall install, operate and properly maintain dental amalgam separator(s) with at least 95% efficiency in amalgam weight and certified *ISO 11143 – “Dentistry - Amalgam Separators”*, in any piping system at its premises that connects directly or indirectly to a sewer, except where the sole dental-related practice at the premises consists of one or more of the following specialties or type of practice:
 - (a) Orthodontics and dentofacial orthopedics;
 - (b) Oral and maxillofacial surgery;
 - (c) Oral medicine and pathology;
 - (d) Periodontics; or
 - (e) A dental practice consisting solely of visits by a mobile dental practitioner who prevents any dental amalgam from being released directly or indirectly to the wastewater works.
- (2) Notwithstanding compliance with Subsection 6.4 (1), all persons operating or carrying on the business of a dental practice shall comply with Schedules ‘A’ and ‘B’ of this Bylaw.
- (3) All dental waste amalgam separators shall be maintained in good working order and according to the manufacturer’s recommendations.
- (4) A maintenance schedule and record of maintenance shall be submitted to the ACRWC upon request for each dental amalgam separator installed.

6.5 FOOD WASTE GRINDERS

- (1) In the case of industrial, commercial or institutional premises where food waste grinding devices are installed in accordance with the Building Code, the effluent from such food waste grinding devices must comply with Schedule ‘A’ and Schedule ‘B’.

6.6 PRETREATMENT FACILITIES

- (1) When not adhering to the requirements and prohibitions to the bylaw or where required by ACRWC, the owner or operator shall install on the premises, and prior to the sampling point, a wastewater pretreatment facility.
- (2) The owner or operator shall ensure the design, operation and maintenance of the pretreatment facility achieves the treatment objectives and operates and is maintained in accordance with the manufacturer’s recommendations.
- (3) The owner or operator shall not deposit the waste products from the pretreatment facility in a wastewater works and shall ensure any waste products from the pretreatment facility are disposed of in a safe manner.
- (4) The maintenance records and waste disposal records shall be submitted to ACRWC upon request.
- (5) The owner or operator shall keep documentation pertaining to the pretreatment facility

and waste disposal for two years.

7. HAULED WASTEWATER/WASTE

- (1) No person shall discharge hauled wastewater/waste to the wastewater works unless:
 - (a) The carrier of the hauled wastewater/waste, operating as a waste management system is certified according to all applicable federal and provincial legislation, as amended from time to time;
 - (b) The carrier meets all conditions for discharge that are or may be set from time to time with respect to the discharge of hauled wastewater/waste by ACRWC; and
 - (c) Hauled wastewater/waste meets the conditions set out in all applicable federal and provincial environment protection regulations, as amended from time to time.
- (2) No person shall discharge or permit the discharge of hauled wastewater/waste to the wastewater works:
 - (a) At a location other than a hauled wastewater/waste discharge location approved by ACRWC;
 - (b) Without a manifest, in a form approved by the Member Municipality of ACRWC in which the hauled wastewater/waste is being discharged, completed and signed by the carrier and deposited in an approved location at the time of discharge; and
 - (c) Without the use of a discharge hose placed securely in the discharge port at the approved location.

8. NON-CONTACT COOLING WATER

- (1) The discharge of non-contact cooling water or uncontaminated water to a sanitary sewer or from any residential property is prohibited unless the discharge is in accordance with a Wastewater Discharge Permit.

9. WATER ORIGINATING FROM A SOURCE OTHER THAN THE MUNICIPAL WATER SUPPLY

- (1) The discharge of water originating from a source other than the Municipality's water supply, including storm water or groundwater, directly or indirectly to a sanitary sewer is prohibited, unless:
 - (a) The discharge is in accordance with a Wastewater Discharge Permit.

10. SPILLS

- (1) In the event of a spill to a wastewater works, the person responsible or the person having the charge, management and control of the spill shall:
 - (a) immediately notify and provide any requested information with regard to the spill to:
 - (i) If there is any immediate danger to human health and/or safety
 - a. 9-1-1 emergency
 - b. The applicable Member Municipality's Utility Department's emergency

number. (The member shall then notify ACRWC's Wastewater Treatment Plant's Control Room at 780 416 9967)

or

- (ii) If there is no immediate danger:
 - a. The applicable Member Municipality's Utility Department's emergency number. (The member shall then notify ACRWC's Wastewater Treatment Plant's Control Room at 780 416 9967), and
 - b. the owner of the premises where the spill release occurred, and
 - c. any other person whom the person reporting knows or ought to know may be directly affected by the spill release.
- (b) Provide a detailed report on the spill to the applicable Member Municipality's Utility Department and to ACRWC via email: discharge@acrwc.ab.ca, within five working days after the spill, containing the following information to the best of his or her knowledge:
 - (i) Location where spill occurred;
 - (ii) Name and telephone number of the person who reported the spill and the location and time where and when they can be contacted;
 - (iii) Date and time of spill;
 - (iv) Material spilled;
 - (v) Characteristics and composition of material spilled;
 - (vi) Volume of material spilled;
 - (vii) Duration of spill event;
 - (viii) Work completed and any work still in progress in the mitigation of the spill;
 - (ix) Preventive actions being taken to ensure a similar spill does not occur again; and
 - (x) Copies of applicable spill prevention and spill response plans.
- (c) The person responsible for the spill and the person having the charge, management and control of the spill shall do everything reasonably possible to contain the spill, protect the health and safety of citizens, minimize damage to property, protect the environment, clean up the spill and contaminated residue and restore the affected area to its condition prior to the spill.
- (d) Nothing in this Bylaw relieves any persons from complying with any notification or reporting provisions of:
 - (i) Other government agencies, including federal and provincial agencies, as required and appropriate for the material and circumstances of the spill; or,
 - (ii) Any other Bylaw of the Member Municipality.
- (e) The Member Municipality may invoice the person responsible for the spill to recover costs of time, materials and services arising as a result of the spill. The person responsible for the spill shall pay the costs invoiced.
- (f) ACRWC may require the person responsible for the spill to prepare and submit a spill contingency plan to ACRWC to indicate how risk of future incidents will be reduced and how future incidents will be addressed.

11. AUTHORITY OF ACRWC AND/OR MEMBER MUNICIPALITY TO INVESTIGATE

- (1) ACRWC, together with, or when designated by, its Member Municipality, has the authority to carry out any inspection reasonably required to ensure compliance with this bylaw, including but not limited to:
 - (a) Inspecting, observing, sampling and measuring the flow in any private
 - (i) sewer,
 - (ii) wastewater disposal system, and
 - (iii) flow monitoring point;
 - (b) Take samples of wastewater, storm water, clear-water waste and subsurface water being released from the premises or flowing within a private drainage system;
 - (c) Perform on-site testing of the wastewater, storm water, clear-water waste and subsurface water within or being released from private drainage systems, pretreatment facilities and storm water management facilities;
 - (d) Collect and analyze samples of hauled wastewater coming to a discharge location into the wastewater works;
 - (e) Make inspections of the types and quantities of chemicals being handled or used on the premises in relation to possible release to the wastewater works;
 - (f) Require information from any person concerning a matter;
 - (g) Inspect and copy documents or remove documents from premises to make copies;
 - (h) Inspect chemical storage areas and spill containment facilities and request Safety Data Sheets (SDS) for materials stored or used on site;
 - (i) Inspect the premises where a release of prohibited or restricted wastes or of water containing prohibited or restricted wastes has been made or is suspected of having been made, and to sample any or all matter that could reasonably have been part of the release.
- (2) No person shall hinder or prevent ACRWC and/or the Member Municipality from carrying out any of their powers or duties.

12. AUTHORITY OF CHIEF EXECUTIVE OFFICER

- (1) Notwithstanding the requirements of this Bylaw, the Chief Executive Officer of ACRWC may prohibit or set discharge concentrations and/or limit the loading rate for any other material or substance not included in the Bylaw schedules where required to protect wastewater works or processes, meet effluent standards or other legislated requirements, or control biosolids quality.

13. DISCONNECTION OF SEWER

- (1) Where wastewater which:
 - (a) Is hazardous or creates an immediate danger to any person;
 - (b) Endangers or interferes with the operation of the wastewater works and/or the wastewater treatment processes; or

(c) Causes or is capable of causing an adverse effect;

is discharged to the wastewater works, the ACRWC may require the Member Municipality, in addition to any other remedy available, to disconnect, plug or seal off the sewer discharging the unacceptable wastewater into the wastewater works or take such other action as is necessary to prevent such wastewater from entering the wastewater works.

- (2) The member municipality may be required to prevent the wastewater from being discharged into the wastewater works until evidence satisfactory to ACRWC has been provided confirming that no further discharge of hazardous wastewater will be made to the wastewater works.
- (3) Where ACRWC takes action pursuant to subsection 13(1), the Member Municipality may by notice in writing advise the owner or occupier of the premises from which the wastewater was being discharged, of the cost of taking such action and the owner or occupier, as the case may be, shall forthwith reimburse the Member Municipality for all such costs which were incurred.

14. ACCESS TO INFORMATION

- (1) All information submitted to and collected by ACRWC that is contained in plan summaries, reports, surveys, monitoring and inspection and sampling activities will, except as otherwise provided in this section, be available for disclosure to the public in accordance with the Freedom of Information and Protection of Privacy Act.
- (2) In the event that any person in submitting information to the ACRWC, as required under this article, where such information is confidential or proprietary or otherwise, may be exempt from disclosure under the Freedom of Information and Protection of Privacy Act, the person submitting the information shall so identify that information upon its submission to ACRWC and where such information is exempt from disclosure, ACRWC shall comply with the requirements of the *Freedom of Information and Protection of Privacy Act*.

15. MONITORING ACCESS POINTS

- (1) The owner or operator of industrial, commercial or institutional premises shall install and maintain in good repair in each private sewer connection a suitable monitoring access point to allow observation, sampling and flow measurement of the wastewater, uncontaminated water or storm water therein, provided that, where installation of a monitoring access point is not possible, an alternative device or facility may be substituted with the prior written approval of ACRWC:
 - (a) when the sewer connection is new;
 - (b) when the premises is redeveloped; and
 - (c) when required to do so by ACRWC and the Member Municipality.
- (2) The monitoring access point or alternative device or facility, such as a sampling port, shall be located on the industrial, commercial or institutional premises, as close to the property line as possible, unless ACRWC and the applicable member municipality have given prior written approval for a different location.

- (3) Each monitoring access point, alternative device or facility installed shall be designed and constructed in accordance with good engineering practice and the requirements of ACRWC and the Member Municipality, and shall be constructed and maintained by the owner or operator of the premises at his or her expense.
- (4) The owner or operator of an industrial, commercial or institutional premises shall at all times ensure that every monitoring access point, alternative device or facility installed as required by this bylaw is accessible to ACRWC and the Member Municipality for the purposes of observing, sampling and flow measurement of the wastewater, uncontaminated water or storm water therein.

16. OVERSTRENGTH SURCHARGE

- (1) ACRWC may assess Overstrength and Additional Overstrength Surcharges for wastewater discharges that exceed the limits of treatable parameters set out in Schedule 'C'.
- (2) Overstrength and Additional Overstrength Surcharges are assessed to the Member Municipality where the Wastewater discharge originates.
- (3) Testing of the wastewater being discharged into the sanitary sewer to determine Overstrength Surcharges shall be conducted by ACRWC and/or the Member Municipality, or by the discharger to the satisfaction of ACRWC that a representative sample is obtained, using automated sampling devices or in accordance with the following manual sampling protocol:
 - (a) Samples from the wastewater produced at a location will be collected each day for a minimum of two days;
 - (b) A minimum of four grab samples of equal volume shall be taken each day, such samples to be taken at least one hour apart;
 - (c) The analysis shall be conducted on a composite sample made of each day's grab samples;
 - (d) The respective results of these tests for each of the days on which samples are taken, shall be averaged to determine the characteristics and concentration of the effluent being discharged into the wastewater system.
- (4) The Overstrength and Additional Overstrength Surcharge Rates will be reviewed and adjusted accordingly from time to time as determined by ACRWC.

17. COMPLIANCE PROGRAMS

- (1) ACRWC may require an industry to apply for, and then issue, a Wastewater Discharge Permit to discharge wastewater to the Wastewater Works that does not comply with Schedule 'A' and/or 'B' of this bylaw. The Industry shall be entitled to make non-complying discharges in the amount and only to the extent set out in the permit.
- (2) As a term set out in the Wastewater Discharge Permit, ACRWC may require an industry to submit a Compliance Program setting out activities to be undertaken by the industry that would result in the prevention or reduction and control of the discharge or deposit of matter and/or uncontaminated water, ground water or storm water from the industry's

premises into municipal sewer connections or private sewer connections to any sanitary sewer. This may include, but is not limited to planning, design and construction or installation of facilities or works needed to implement the approved Compliance Program.

- (3) Each Compliance Program shall include the following :
 - (a) A description of the processes at the premises which produce discharges that do not comply with the requirements of this Bylaw.
 - (b) A description of those processes at the premises which are to be the subject of the Compliance Program.
 - (c) A list of non-complying pollutants present at the premises at any stage of the operations at the premises.
 - (d) A description setting out the types, quantities and concentrations of all non-complying pollutants discharged, directly or indirectly, to a sewer.
 - (e) A description of current wastewater reduction, recycling, wastewater treatment and compliance activities at the premises with respect to discharges to a sewer from the premises.
 - (f) A description of compliance options for non-complying pollutants and wastewater discharge and an evaluation of those options.
 - (g) A list of possible targets and timeframes (in compliance with any Wastewater Discharge Permit that may have been issued to the discharger) to reduce or eliminate the discharge of non-complying matter to the wastewater works.
 - (h) A declaration from an authorized person that the content of the Compliance Program is, to the best of that person's knowledge, true, accurate and complete.
- (4) Every proposed Compliance Program shall be for a specified length of time during which pretreatment facilities or other measures are to be installed or implemented and shall be specific as to the remedial actions to be implemented by the industry, the dates of commencement and completion of the activity and the materials or other characteristics of the matter to which it relates. The final activity completion date shall not be later than the final compliance date in the Compliance Program.
- (5) Industries which are required to submit a Compliance Program shall also submit a Compliance Program progress report to ACRWC within 14 days after the scheduled completion date of each activity listed in the Compliance Program.
- (6) ACRWC may terminate any proposed Wastewater Discharge Permit related to a Compliance Program by written notice at any time to the Industry in the event that the Industry fails or neglects to carry out or diligently pursue the activities required of it under its Compliance Program.
- (7) In the event that an Industry submitting a Compliance Program is not sent written notice from ACRWC that its Compliance Program is not approved by ACRWC within 90 days of the Industry delivering a copy of the Compliance Program to ACRWC, the Compliance Program shall be deemed to have been approved by ACRWC.
- (8) Where an Industry receives notice from ACRWC that its Compliance Program has not been approved, ACRWC shall provide the Industry with a date by which it must submit an amended Compliance Program to ACRWC for approval in accordance with this article.

- (9) In the event that a Compliance Program resubmitted to ACRWC in accordance with Subsection 17 (8) of this section does not comply with the requirements of this bylaw, ACRWC shall so notify the Industry, within 30 days of delivery to ACRWC of the amended Compliance Program, and the Industry shall be in contravention of Subsection 17 (1) and shall continue to be in contravention of this section until such time as ACRWC approves an amended Compliance Program resubmitted by the Industry, in accordance with this section.
- (10) When required by ACRWC, an Industry which has received approval from ACRWC for its Compliance Program shall submit a revised and updated Compliance Program for the approval of ACRWC within the timeframe specified by ACRWC. Such revised and updated Compliance Program shall, in addition to the requirements otherwise set out in this section, detail and evaluate the progress of the Industry to accomplish the objectives set out in its Compliance Program.
- (11) A copy of the Compliance Program shall be kept at all times at the premises in respect to which it was prepared and shall be available for inspection by ACRWC and/or the Member Municipality at any time.

18. BEST MANAGEMENT PRACTICES & CODES OF PRACTICE

- (1) The Chief Executive Officer is authorized to approve the adoption of Best Management Practices which include Codes of Practice. The provisions of this bylaw requiring compliance with Best Management Practices, including Codes of Practice apply to all Best Management Practices approved by the Chief Executive Officer
- (2) ACRWC has adopted one or more Best Management Practices which include Codes of Practice which applies to the Designated Sector Operations, as outlined in ACRWC's Code of Practice Registration Form for Designated Sector Operations, available on ACRWC's website at www.acrwc.ab.ca.
- (3) A code of practice does not apply to a discharging operation that is subject to a Wastewater Discharge Permit, unless otherwise specified in the Wastewater Discharge Permit.
- (4) A code of practice does not apply to the discharge of domestic wastewater.
- (5) Nothing in a code of practice relieves a person discharging wastewater from complying with this bylaw, a Wastewater Discharge Permit or any other applicable enactment.
- (6) ACRWC may require a discharging operation to obtain a Wastewater Discharge Permit if considered necessary by ACRWC due to circumstances not covered by a code of practice.
- (7) As a condition of discharge of wastewater into a sewer connected to a Wastewater Works, an operator of a discharging operation listed within ACRWC's Code of Practice Registration Form for Designated Sector Operations must submit to ACRWC a completed Code of Practice registration form:
 - (a) Within 90 days of the date of adoption of the applicable code of practice in the case of a discharging operation in existence on the adoption date; or
 - (b) In all other cases, within 30 days of the discharging operation commencing the discharge of wastewater into a sewer connected to a Wastewater Works.

- (8) An operator must report to ACRWC any change in the ownership, name, location, contact person, telephone number, or email address of a discharging operation registered under a code of practice within 30 days of the change by submitting a completed code of practice registration form referred to in Section 18.2 showing the changes.
- (9) An operator must within 30 days of any change in the discharging operation registered under a code of practice resulting in the operation no longer meeting the definition applicable to that type of discharging operation report the change by submitting a completed code of practice registration form referred to in Section 18.2 describing the changes.
- (10) If a code of practice establishes a requirement in relation to a specific discharging operation which differs from a provision in this bylaw, the requirement in the code of practice prevails.

19. MEMBER MUNICIPALITY OBLIGATIONS

- (1) The Wastewater to be treated by ACRWC is delivered to ACRWC's Wastewater Works by the Member Municipalities.
- (2) The Member Municipalities will reflect the requirements and prohibitions of this ACRWC Bylaw in the Member Municipality's utility or wastewater bylaws.
- (3) Each Member Municipality shall take action to enforce their utility and wastewater bylaws should a person in that Member Municipality breach the municipal bylaw, resulting in a breach or contravention of the ACRWC's Bylaw.
- (4) Each Member Municipality shall include an "Offences" section (or similar) detailing penalties for contraventions of their bylaw such as violation notices to comply, violation tickets, fines, discharge abatement orders and court order.
- (5) If a Member Municipality fails to take reasonable steps to enforce that municipality's utility and wastewater bylaws such that a breach or contravention of the ACRWC's Bylaw #8 occurs, the Member Municipality shall pay to ACRWC any increased fees or pre-estimate of damages as approved by the Board of ACRWC.

ENACTED at a meeting of the Board of Directors of THE ALBERTA CAPITAL REGION
WASTEWATER COMMISSION at a meeting duly held on the 18th day of March AD, 2016.

Chairperson

Chief Executive Officer

SCHEDULE 'A' PROHIBITED WASTES

No person shall discharge directly or indirectly or deposit or cause or permit the discharge or deposit of wastewater into a sanitary sewer or municipal sewer connection or private sewer connection, to any wastewater works in circumstances where:

(1) To do so may cause or result in:

- (a) A health or safety hazard to a person authorized by the ACRWC or a Member Municipality to inspect, operate, maintain, repair or otherwise work on a wastewater works;
- (b) An offence under any applicable federal or provincial legislation, as amended from time to time, or any regulation made thereunder from time to time;
- (c) Wastewater sludge from the wastewater treatment facility to which wastewater discharges, either directly or indirectly, to fail to meet the objectives and criteria as listed in any applicable federal or provincial legislation, as amended from time to time;
- (d) Interference with the operation or maintenance of a wastewater works, or which may impair or interfere with any wastewater treatment process;
- (e) A hazard to any person, animal, property or vegetation;
- (f) An offensive odour emanating from wastewater works, and without limiting the generality of the foregoing, wastewater containing hydrogen sulphide, carbon disulphide, other reduced sulphur compounds, amines or ammonia in such quantity as may cause an offensive odour;
- (g) Damage to wastewater works;
- (h) An obstruction or restriction to the flow in wastewater works.

(2) The wastewater has two or more separate liquid layers.

(3) The wastewater contains:

- (a) Hazardous substances;
- (b) Combustible liquid;
- (c) Biomedical waste, including but not limited to the following categories: human anatomical waste, animal waste, untreated microbiological waste, waste sharps and untreated human blood and body fluids known to contain viruses and agents listed in "Risk Group 4" as defined in "Laboratory Biosafety Guidelines" published by Health Canada, dated 2004, as amended.
- (d) Specified risk material for bovine spongiform encephalopathy as defined in the federal Fertilizers Regulations (C.R.C., c. 666), as amended from time to time, including material from the skull, brain, trigeminal ganglia, eyes, tonsils, spinal cord and dorsal root ganglia of cattle aged 30 months or older, or material from the distal ileum of cattle of all ages.
- (e) Dyes or colouring materials which may or could pass through a wastewater works and discolour the wastewater works effluent;
- (f) Fuel;

- (g) Ignitable waste.
- (h) Pathological waste.
- (i) PCBs.
- (j) Pesticides which are not otherwise regulated in this Bylaw.
- (k) Reactive waste.
- (l) Toxic substances which are not otherwise regulated in this Bylaw.
- (m) Waste radioactive substances in excess of concentrations greater than those specified for release to the environment under the *Nuclear Safety and Control Act* and Regulations or amended versions thereof.
- (n) Solid or viscous substances in quantities or of such size to be capable of causing obstruction to the flow in a wastewater works, including but not limited to ashes, bones, cinders, sand, mud, soil, straw, shaving, metal, glass, rags, feathers, tar, plastics, wood, underground garbage, animal parts or tissues, and paunch manure.

(4) The wastewater contains a concentration, expressed in milligrams per litre, in excess of any one or more of the limits in Schedule 'B' of this Bylaw, unless:

- (a) The discharge is in accordance with a valid Wastewater Discharge Permit;
- (b) The discharge is authorized in a Code of Practice approved by ACRWC; and
- (c) All requirements of Section 6 of the Bylaw, Additional Requirements, have been fully satisfied.

SCHEDULE 'B' RESTRICTED WASTES – SANITARY SEWER DISCHARGES

(1)

Table A - CONVENTIONAL CONTAMINANTS

Substance	Concentration Limit– [mg/L, except as noted]
Biochemical Oxygen Demand	10,000
Chemical Oxygen Demand	20,000
Nitrogen, Total Kjeldahl	500
Oil and Grease, Total – Animal and Vegetable + Mineral and Synthetic/Petroleum Hydrocarbons	500
Phosphorus, total	200
Suspended Solids, Total	5,000

Table B - ORGANIC CONTAMINANTS

Substance	Concentration Limit– [mg/L]
Benzene	0.5
Ethylbenzene	0.5
Oil and Grease – Mineral and Synthetic/Petroleum Hydrocarbons	100
Phenols, Total (or phenolic compounds)	1.0
Toluene	0.5
Xylene	0.5

Table C - INORGANIC CONTAMINANTS

Substance	Concentration Limit– [mg/L]
Arsenic (As)	1.0
Cadmium (Cd)	0.10
Chlorine, Total (Cl ₂)	5.0
Chromium (Hexavalent) (Cr ⁺⁶)	2.0
Chromium, Total (Cr)	4.0
Cobalt (Co)	5.0
Copper (Cu)	2.0
Cyanide (CN)	2.0
Lead (Pb)	1.0
Mercury (Hg)	0.10
Molybdenum (Mo)	5.0
Nickel (Ni)	4.0
Selenium (Se)	1.0
Silver (Ag)	5.0
Sulphide (S ⁻)	3.0
Thallium (Tl)	1.0
Zinc (Zn)	2.0

Table D - PHYSICAL PARAMETERS

Parameter	Limit
Flashpoint	Not ≤60.5° C
Lower Explosive Limit (LEL) in headspace	10% of the LEL
pH	6.0 – 11.5 (unitless)
Temperature	60° C

- (2) Concentrations that do not exceed the constituent concentrations limits listed in Schedule 'B' are permitted for discharge, however may be subject to an Overstrength Surcharge outlined in Schedule 'C'.

SCHEDULE 'C' WASTEWATER OVERSTRENGTH LIMITS

	Column A	Column B
Substance	Overstrength Surcharge Concentration Limits, mg/L	Additional Overstrength Concentration Limits, mg/L
Biochemical Oxygen Demand (BOD)	300	3000
Chemical Oxygen Demand (COD)	600	6000
Nitrogen, Total Kjeldahl (TKN)	50	200
Oil and Grease, Total (O&G) – Animal and Vegetable + Mineral and Synthetic/Petroleum Hydrocarbons	100	400
Phosphorus, Total (TP)	10	75
Suspended Solids, Total (TSS)	300	3000

Board Report

Date: March 17, 2023

Subject: Source Control Annual Report

Recommendation

THAT the Board receive the Source Control Annual Report Summary as information.

Alignment to Priorities in Board's Strategic Plan

- Respecting our Environment
 - Release water of the highest possible quality into the North Saskatchewan River
- Responsible Leadership
 - Engage with the Broader Community to Increase the Awareness of the Commission and its Work
 - Build Partnerships that Benefit the Commission and the Community
 - Keep Utility Rates Reasonable and Predictable for Member Municipalities

Discussion

Annually, Administration prepares member specific Source Control Program (SCP) reports and provides these reports to each member municipality. Members' reports highlight the SCP related activities that occurred within their respective municipality throughout the year. Information regarding the pillars of the SCP is provided and includes an overview of the program's principles, sectors of concern, inspections and sampling of industrial, commercial, institutional facilities (ICIs), wastewater discharge permits, sector specific Codes of Practice, adherence to the ACRWC Board's Member Compliance policy, and both outreach and collaboration activities. Administration has received very positive feedback about past years' reports from the technical staff at our member municipalities. Technical staff see tremendous value in the compilation of this data, as it provides support in the collaborative management of the Compliance Policy.

The SCP mitigates risk by working with our members' ICI customers to protect the environment, and the health and safety of the public, municipal utilities staff, ACRWC staff and ICI staff. The program monitors the potential for blockages (solids/unflushables/fats, oils, grease) that could lead to a sanitary sewer overflow, and toxic, flammable, and potentially explosive discharges.

Approved by: Kate Polkovsky

Board Report

Date: March 17, 2023

Subject: Water Re-use Update

Recommendation

THAT the Board receive the re-use update for information.

Alignment to Priorities in Board's Strategic Plan

- Respecting our Environment
 - Release water of the highest possible quality into the North Saskatchewan River
 - Anticipate and Respond to Climate Change
- Responsible Leadership
 - Engage with the Broader Community to Increase the Awareness of the Commission and its Work
 - Build Partnerships that Benefit the Commission and the Community
 - Keep Utility Rates Reasonable and Predictable for Member Municipalities

Discussion

The first quarter of 2023 has brought a tremendous amount of work for all aspects of the water re-use project. There are a myriad of efforts running concurrently to achieve a 2025 commissioning.

Engineering Capital Project

- Over Q1, a first phase tender was released to the market to ascertain a qualified contractor to onboard and work with the consultant and Administration throughout the duration of the project from design to commissioning.
- The 30% design package will be submitted to Administration by mid-March for review and comment.

Water Re-Use Pump Station (completed by others)

- Pre-tender design package is being submitted to Administration for review and Comment by mid-March.
- Construction agreement terms of reference being compiled for execution between parties to delineate roles and responsibilities, Occupational Health and Safety, access, etc.

Water re-use pipeline (completed by others)

- Currently working on ascertaining further information on alignment, design, and construction timelines for review by the Commission.

Water re-use Commercial Agreement

- Draft agreement is being circulated for review; the review is expected to have multiple iterations, including a legal review.
- Administration is utilizing a utility rate consulting company to support the creation of the rate and inclusion of rate principles in the agreement.
- Once the document is in a more finalized state it will be brought to the board for review and approval.

Engagement with the Province

- Administration continues to strongly engage with the province and gain traction with support for grant dollars to support the water re-use expansion and growth of this sector to support the energy sector in the province.
- A communication and public relations campaign is being launched going into April to push awareness and build traction in these issues as it relates to affordability for Albertans and mitigating downloading onto the rate payer.
- The objectives as we move into the next 6 months include:
 - Bringing awareness to the region that water plays a significant role in bringing energy projects online;
 - Raising awareness of the work the Commission has done to date;
 - Elevating the understanding within the GoA of the need to contribute \$50M in funding to ensure residents of the Capital Region do not bear the cost of a water re-use need, and
 - Develop political and public support for the project and necessary upgrades to the ACRWC facilities.

CALENDAR OF EVENTS

Board Dates

March 17, 2023, Board Meeting
 May 15th – 17th, 2023, Board Workshop
 June 16, 2023, Board Meeting
 September 15, 2023, Board Meeting
 November 24, 2023 (Organization Meeting)

Upcoming Conferences & Workshops

<p>Utility Management Conference 2023 March 28-31, 2023 Sacramento, CA</p>	<p>Joint AWWA and WEF water utility management conference. Smaller scale than WEFTEC. Topics would be of interest to Board members</p>
<p>ACE American Water Works Association June 11-14, 2023 Toronto, ON</p>	<p>Drinking water conference with some overlap into water resources, asset management and utility management. Would appeal to Board members who sit on both the water and wastewater</p>
<p>2023 Water Canada Summit June 7-9, 2023 Ottawa, ON</p>	<p>Focus on “Blue Economy” topics include drinking water, wastewater and stormwater with a focus on projects, policies and innovations.</p>
<p>WEFTEC 2023 September 30 – October 4, 2023 Chicago, IL</p>	<p>Wide variety of material from high level to very technical. Excellent intro to wastewater industry. Recommend attending once in four-year term.</p>
<p>NWWC 2023 November 12-15, 2023 Niagara Falls, ON</p>	<p>The National conference for water utility sector, focusing on what senior water managers need to know</p>

Fact Sheet and Acronyms

Treatment Plant

- The ACRWC operates a Class 4 treatment plant (highest class in Alberta)
- Design capacity – 105 ML(million liters)/day (or 27.7 million gallons/day)
- Average flow – approximately 82.85 ML/day
- About 5,600 dry tonnes/yr of biosolids are produced
 - 83.7% of solids are dewatered and composted at the city site
 - 16.3% of solids are stabilized and directly land applied from the city site
 - ACRWC biosolids are considered class B
 - ACRWC spends approximately \$4.4 million/yr to truck and pay for external treatment of biosolids
- 1,920,000 cubic meters of biogas burned for heat
- 2,860,000 cubic meters of biogas flared

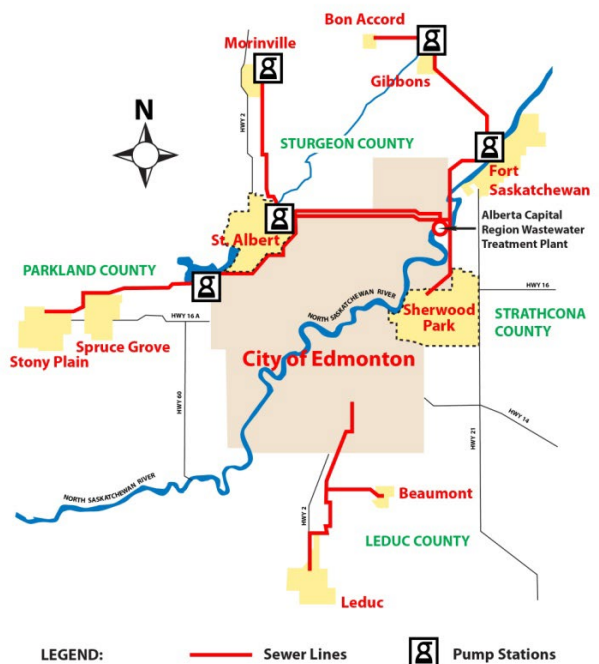
Utilities

- Natural gas purchased – 29,100 GJ
- Electricity purchased – 17,485,000 kWh

Transmission System

- The trunk system is 205 km of large diameter pipe.
- There are 5 large pump stations with some of the largest equipment of its type in Canada.
- The pump stations together total 5850 horse power to move water from the region to the treatment plant

Wastewater Transmission Network



ACRONYMS

ACFA	Alberta Capital Finance Authority
ACRWWTP	Alberta Capital Region Wastewater Treatment Plant
AEP	Alberta Environment and Parks
BNR	Biological Nutrient Removal (Nitrogen and phosphorous removal)
BOD	Biological Oxygen Demand (measure of wastewater's strength)
DAF	Dissolved air flotation (process to thicken solids)
DO	Dissolved Oxygen
DWF	Dry Weather Flow
Effluent	Flow leaving the plant
Influent	Flow coming into the plant
I&I	Inflow and infiltration (wet weather flow)
L/S	Litres per second (used to measure flow)
M3/S (cms)	Cubic meters/second (used to measure flow; 1 M3/S = 1000 L/S)
MLD	Megalitres per day (1 megaliter = 1 million litres)
NERTS	North East Regional Trunk Sewer (serves members in northeast)
PSTS	Parkland Regional Trunk
QA/QC	Quality Assurance/Quality Control
ROW, R/W	Right of Way
SERTS	South East Regional Trunk Sewer (serves southern members)
SS	Suspended Solids
START	St. Albert Regional Trunk (serves members in northwest)
TSS	Total Suspended Solids
UV	Ultra Violet, process used to disinfect wastewater
WWF	Wet Weather Flow (excess flow during rain events)